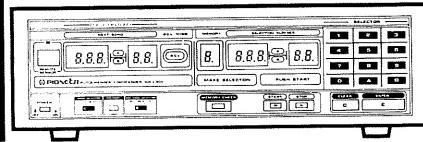


Service Manual



ORDER NO.
ARP1851

AUTO CHANGER COMMANDER

CO-V300

- This manual is applicable to the KU/CA type.
- Automatic play is possible with the integrated LC-V300 video disc auto changer.
- Up to four LC-V300 video disc auto changer can be played alternately by using CO-V300.

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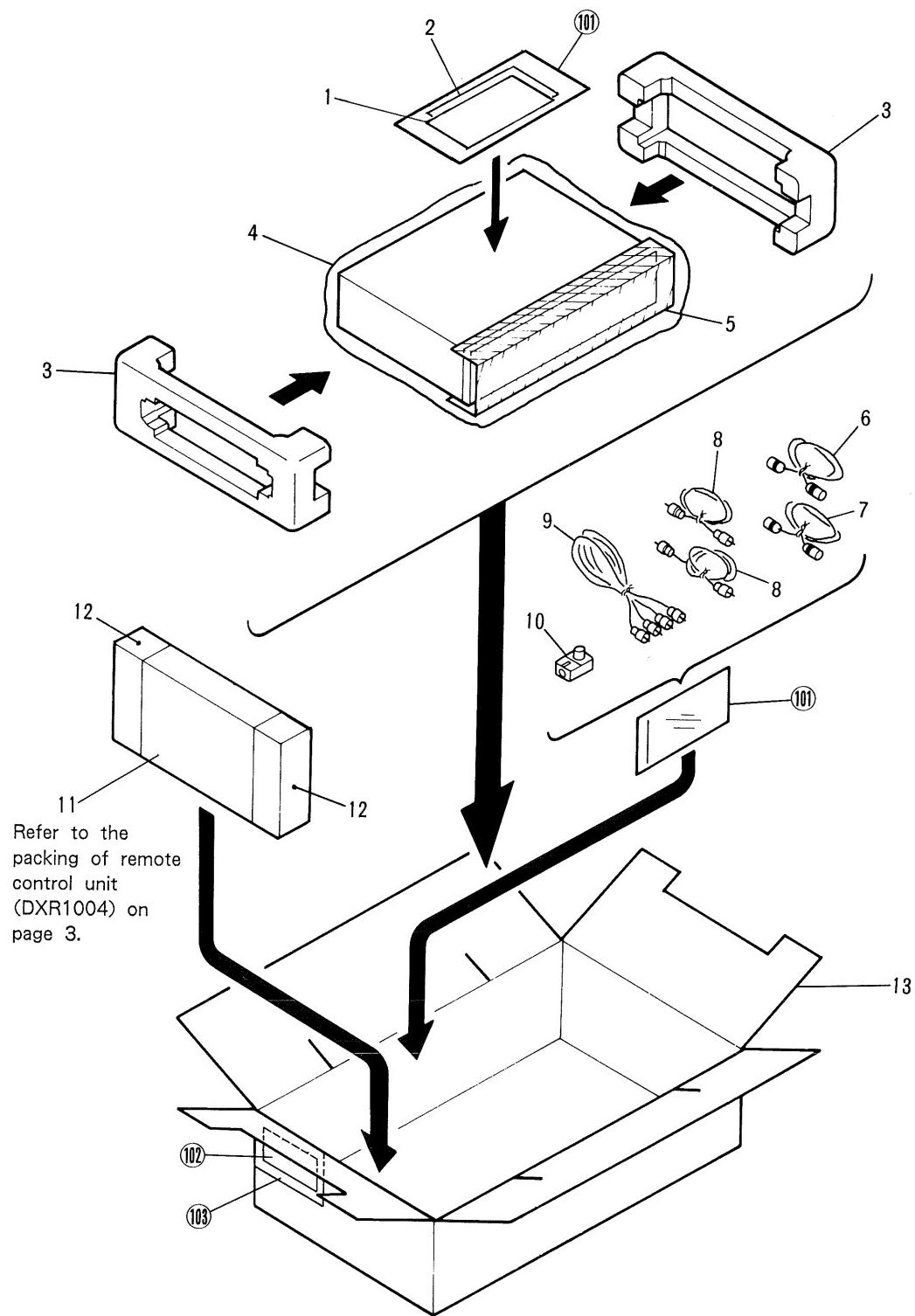
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SI JUNE 1989 Printed in Japan

1. PACKING

Main unit



NOTES :

- Parts without part number cannot be supplied.
- The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by “ \odot ” are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Parts List of Packing**Main unit packing**

<u>Mark</u>	<u>No.</u>	<u>Part No.</u>	<u>Description</u>
1	DRB1018		Operating instructions A
2	DRB1019		Operating instructions B
3	DHA-107		Side pad
4	RHX-030		Sheet B
5	RHC-144		Styren paper
6	VDE-039		RF antenna cable
7	DDE-113		13-pin DIN cord
8	DDE1013		Connection cord (video cord)
9	DEE1015		Connection cord (audio cord)
10	VKX-019		Antenna adapter
11	DXR1004		Remote control unit (CU-V114)
12	DHA-111		Remote control pad
13	DHG1118		Packing case
101			Plastic bag
102			Follow-up card
103			Follow-up card bag

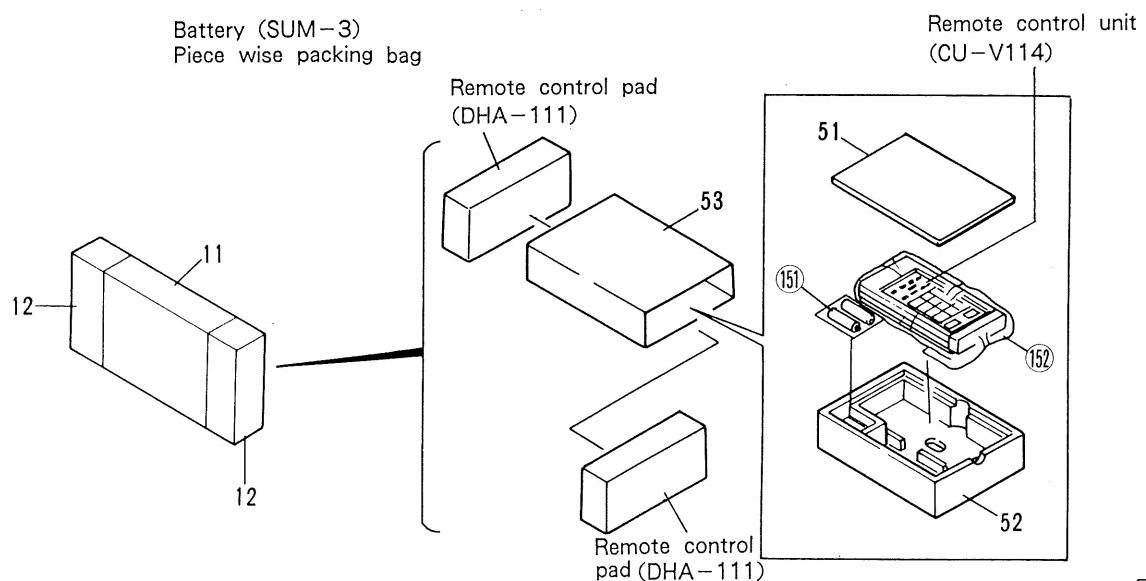
Remote Control Unit (DXR1004)

Note : The serial No. of the remote control unit is CU-V114.

The parts No. of the packed unit is DXR1004.

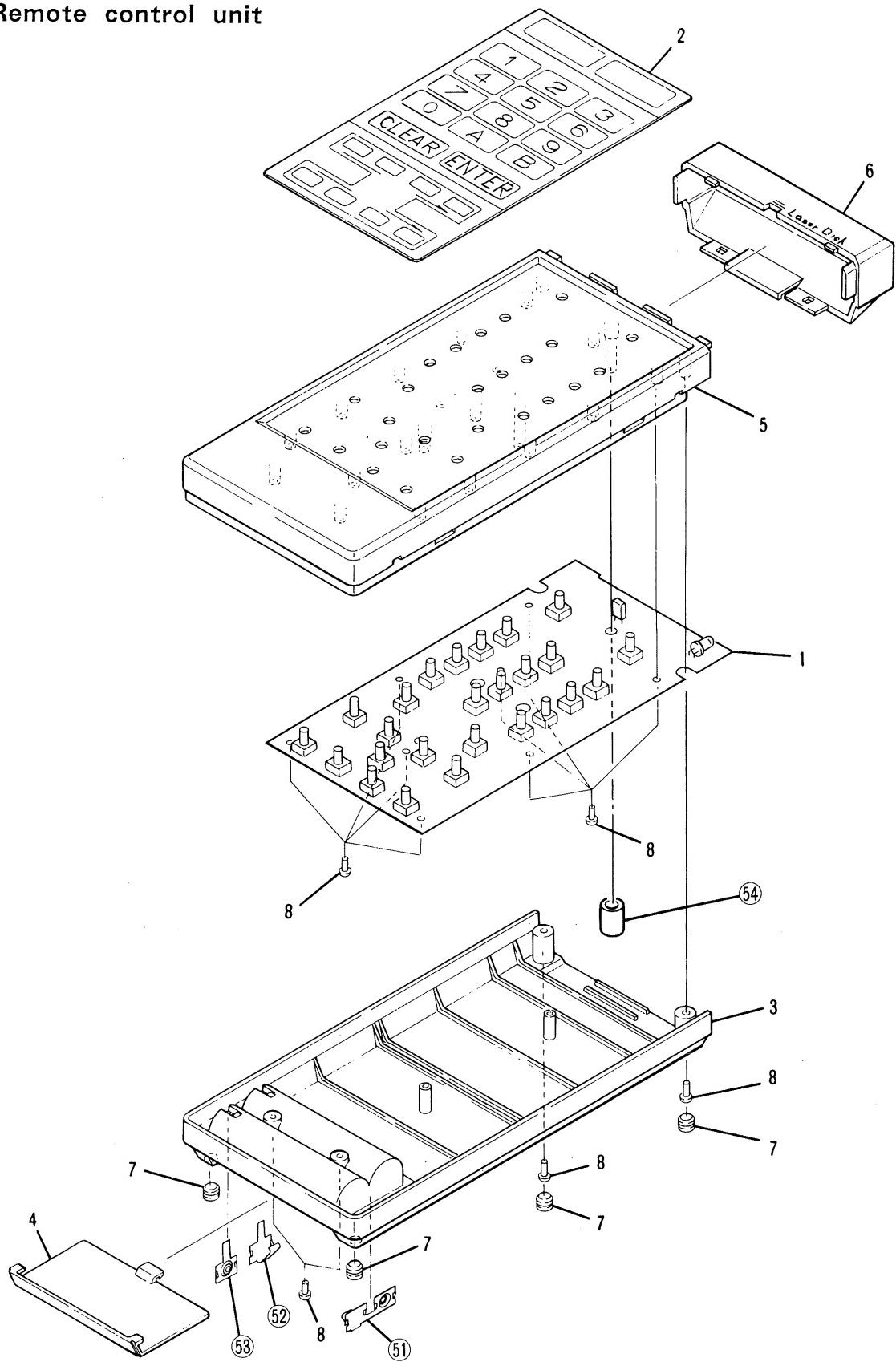
Parts List of Remote control unit (DXR1004)

<u>Mark</u>	<u>No.</u>	<u>Part No.</u>	<u>Description</u>
51	VHA-096		Pad (B)
52	VHA-095		Pad (A)
53	DHG1121		Packing case
151			Battery (SUM-3)
152			Piece wise packing bag



2. EXPLODED VIEWS AND PARTS LIST

Remote control unit



Exterior

NOTES :

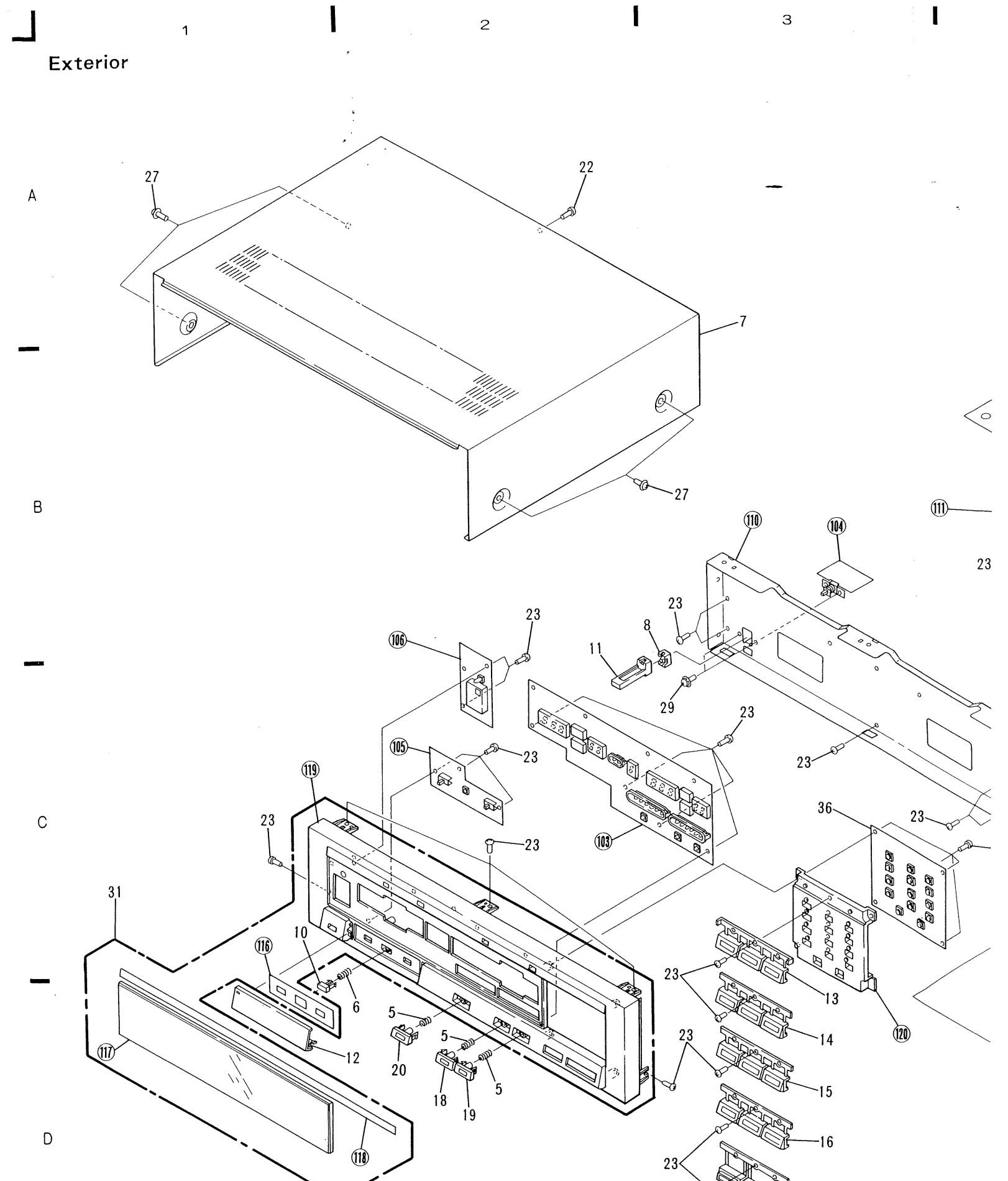
- Parts without part number cannot be supplied.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "○" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

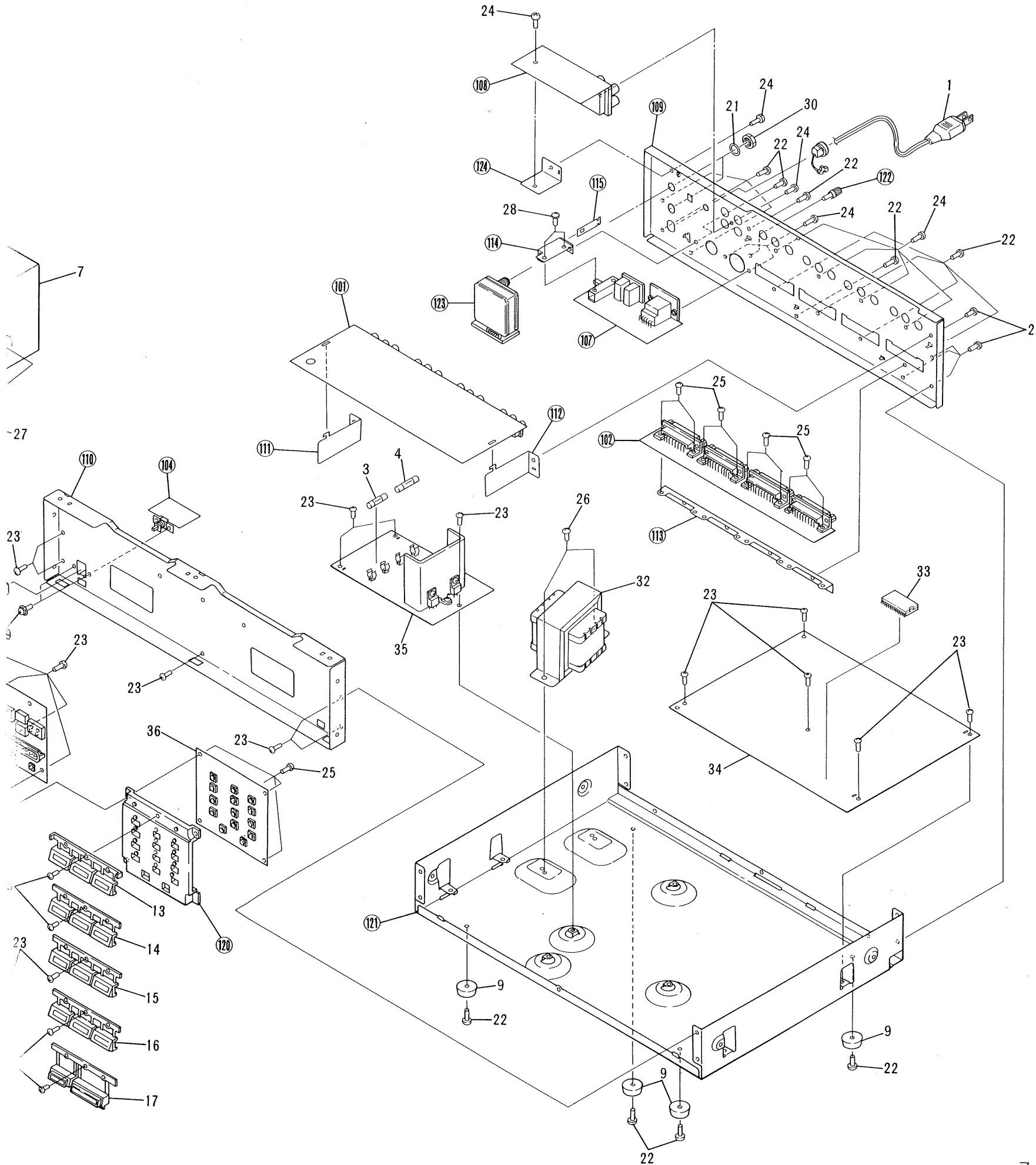
Parts List of Remote Control Unit (DXR1004)

Mark	No.	Part No.	Description
1	DWY1004	RMTC unit	
2	DAH1329	Operation sheet	
3	DMA-148	Under case	
4	DMA-149	Battery cover	
5	DNK1488	Upper case	
6	DNK1047	IR filter	
7	VEB-074	Rubber foot	
8	PPZ20P060FMC	Screw (2×6)	
51		Terminal	
52		Terminal	
53		Terminal	
54		spacer	

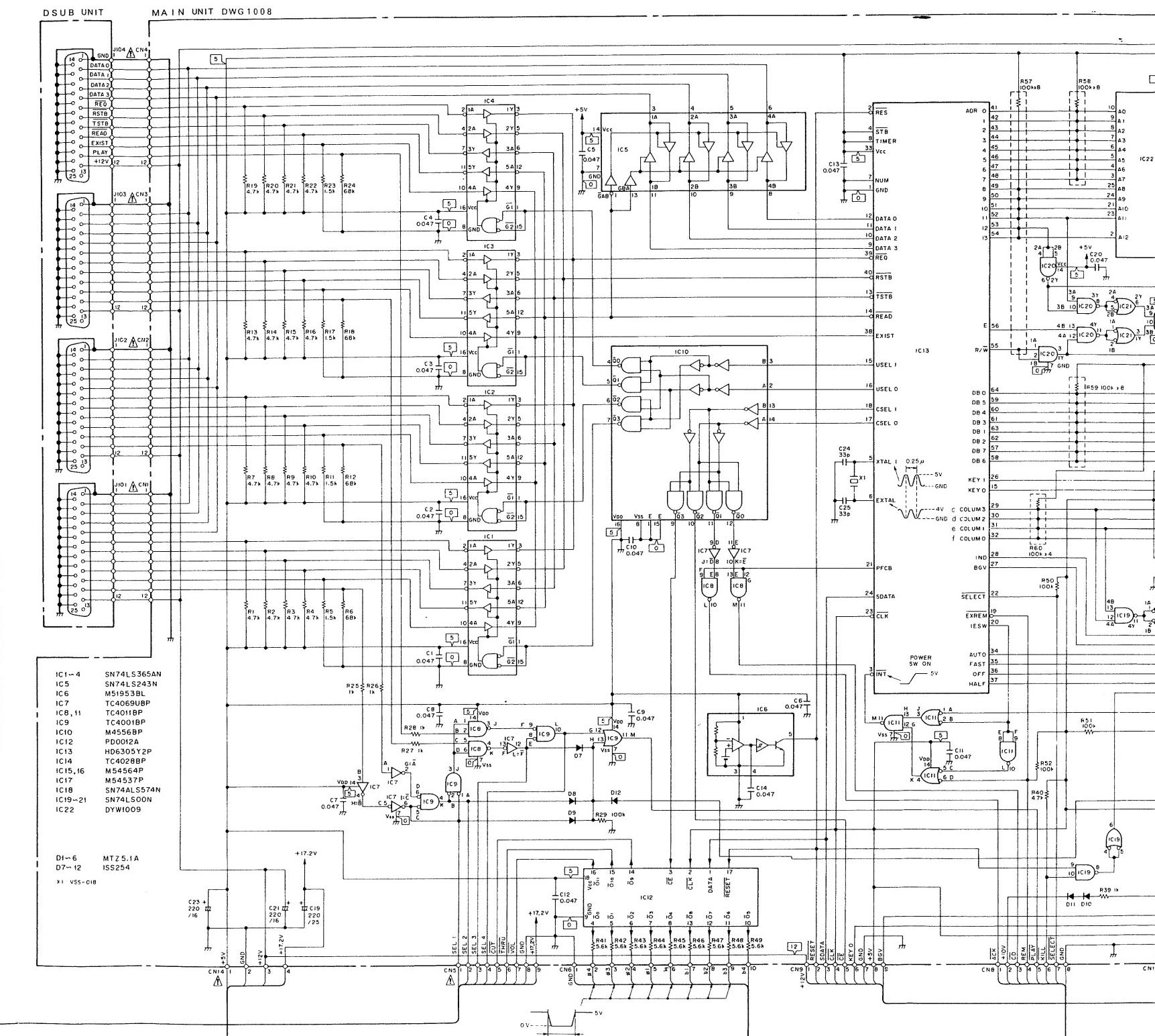
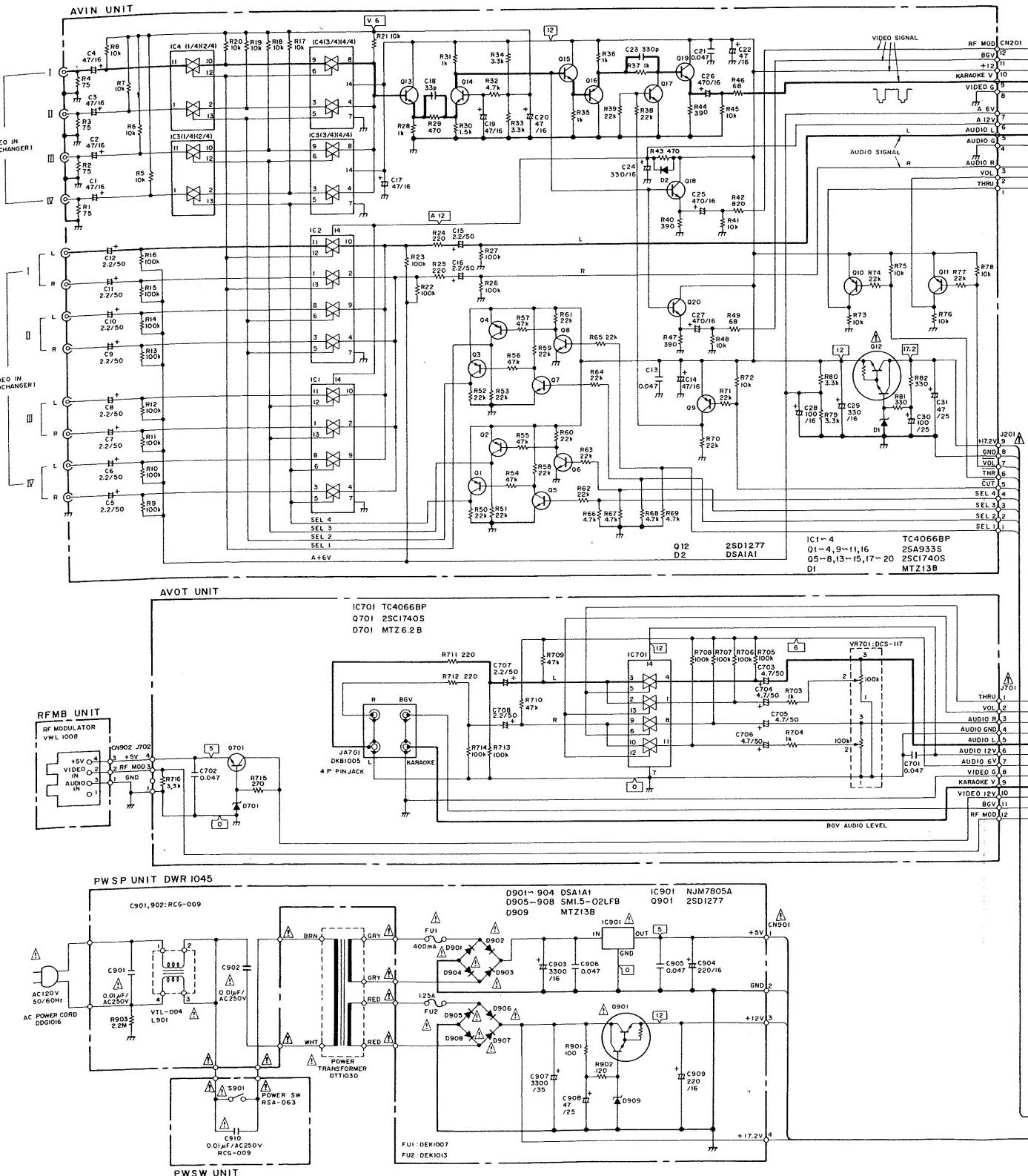
Parts List of Exterior

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
Δ	1	DDG1016	AC power cord	○	36	DWS1007	KEYB unit
Δ	2		101		AVIN unit	
Δ	3	DEK1007	FU1 Fuse (400mA)	102		DSUB unit	
Δ	4	DEK1013	FU2 Fuse (1.25A)	103		DISP unit	
	5	DBH1002	Spring A	104		PWSW unit	
	6	DBH1003	Spring B	105		MODE unit	
	7	DNE-108	Bonnet	106		IRAB unit	
	8	VEC-151	Flexible ring	107		DINB unit	
	9	VEC-119	Leg cap	108		AVOT unit	
	10	DAC1009	Select knob	109		Rear panel	
	11	DAC1010	Power knob	110		Panel stay	
	12	DNK1012	Sealing panel				
	13	DXA1063	Numeric key 1 assembly	111		PCB holder	
	14	DXA1064	Numeric key 4 assembly	112		PCB holder (L)	
	15	DXA1065	Numeric key 7 assembly	113		D sub holder	
	16	DXA1066	Numeric key 0 assembly	114		Switch holder	
	17	DXA1129	EC key assembly	115		Switch lever	
	18	DXA1014	Start knob assembly	116		Display panel A	
	19	DXA1015	Stop knob assembly	117		Display panel B	
	20	DXA1016	Check knob assembly	118		Display sash	
	21	VNE-270	F-washer	119		Front panel	
	22	BBZ30P060FZK	Screw	120		Numeric keys holder	
	23	BBZ30P080FMC	Screw				
	24	BBZ30P080FZK	Screw				
	25	BBZ30P120FMC	Screw				
	26	BBZ40P080FMC	Screw				
	27	FBT40P080FZK	Screw				
	28	PMA26P050FMC	Screw				
	29	PMA30P060FMC	Screw				
	30	VLL-082	F-nut				
Δ	31	DXX1260	Front panel assembly				
	32	DTT1030	Power transformer (T1: 120V)				
○	33	DWY1009	IC22 (ROM)				
○	34	DWG1008	MAIN unit				
○	35	DWR1045	PWSP unit				

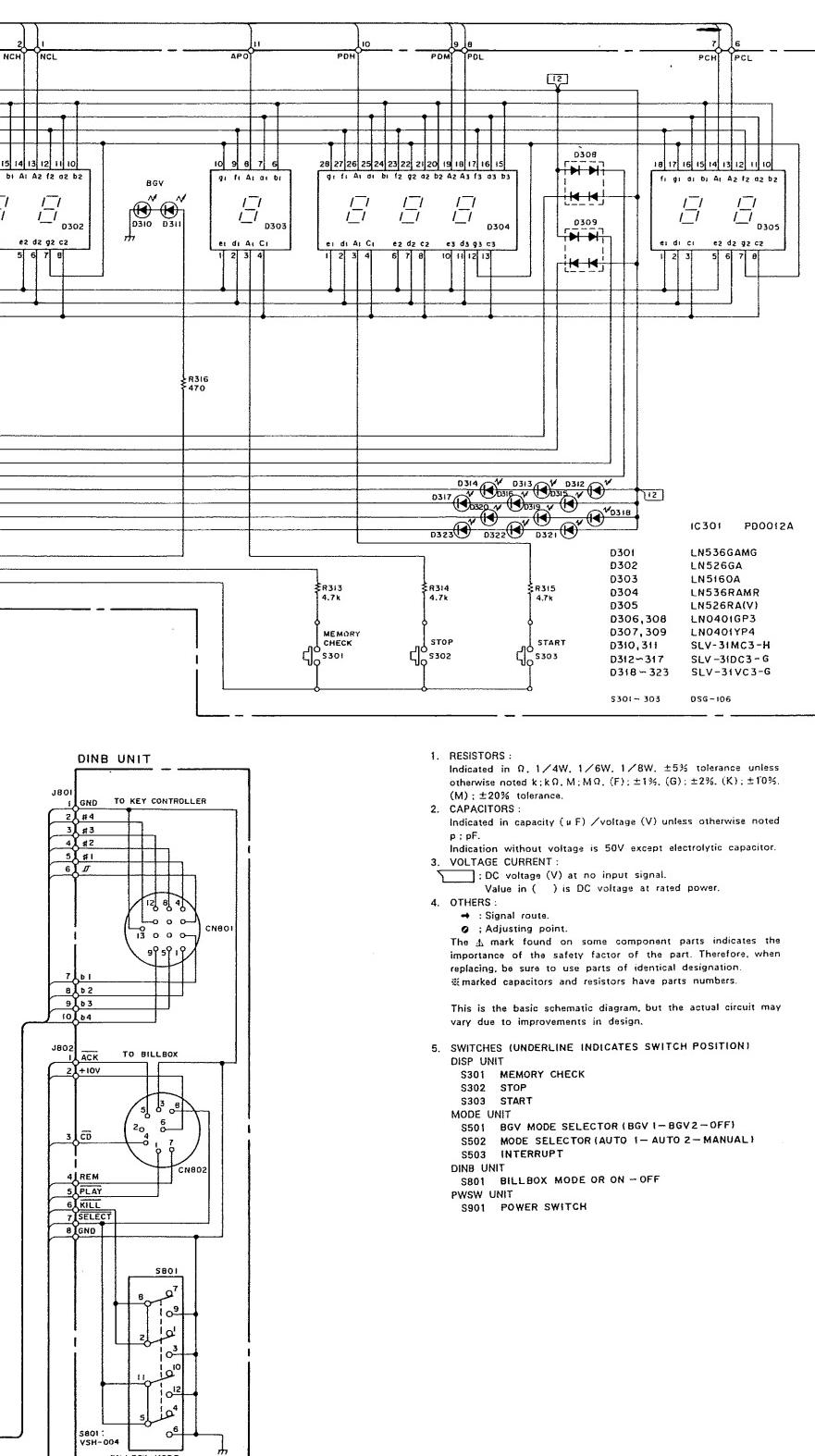
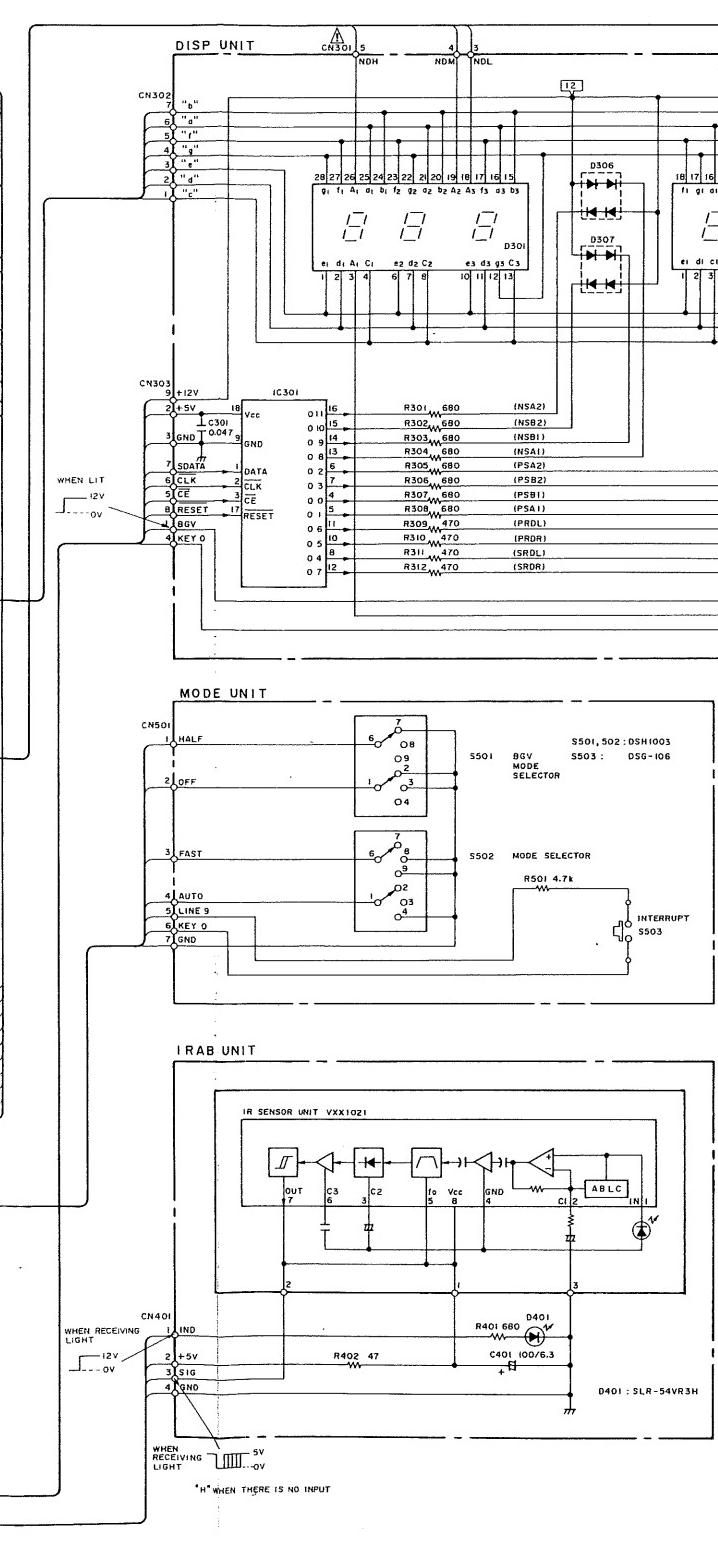
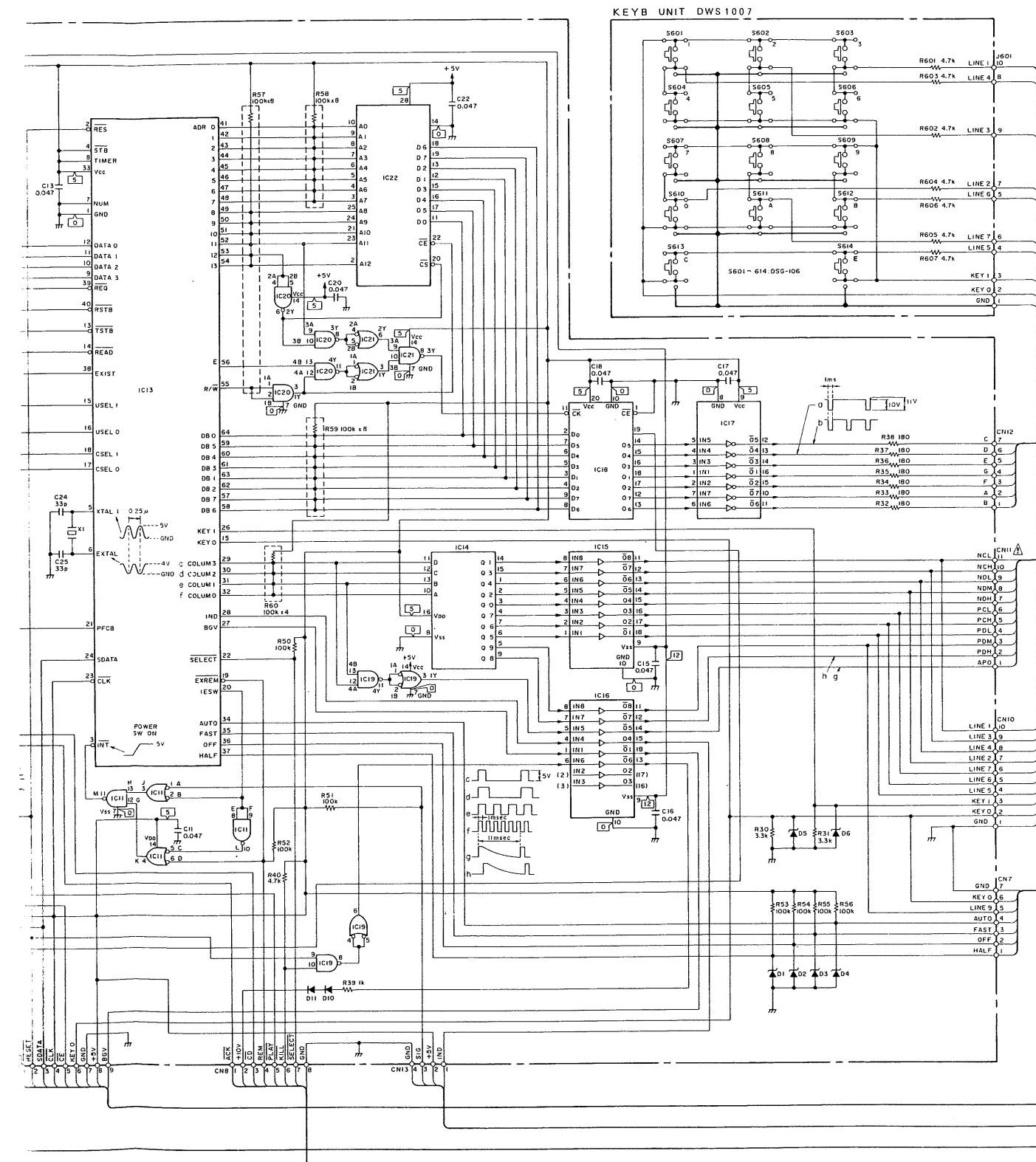




3.2 SCHEMATIC DIAGRAM OF MAIN UNIT



A



1. RESISTORS : Indicated in Ω . 1/4W, 1/8W, 1/16W, $\pm 5\%$ tolerance unless otherwise noted. k:K, M:MO, (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$, (M): $\pm 20\%$ tolerance.

2. CAPACITORS : Indicated in capacity (μF) / voltage (V) unless otherwise noted. p:PF. Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE CURRENT : \square : DC voltage (V) at no input signal. Value in (---) is DC voltage at rated power.

4. OTHERS : \rightarrow : Signal route. \bullet : Adjusting point. The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation. \otimes marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCHES (UNDERLINE INDICATES SWITCH POSITION)

- DISP UNIT**
- S301 MEMORY CHECK
 - S302 STOP
 - S303 START
- MODE UNIT**
- S501 BGV MODE SELECTOR (BGV 1-BGV 2-OFF)
 - S502 MODE SELECTOR (AUTO 1-AUTO 2-MANUAL)
 - S503 INTERRUPT
- DINB UNIT**
- S801 BILL BOX MODE ON-OFF
- PWSW UNIT**
- S901 POWER SWITCH

D

3.3 P.C. BOARDS CONNECTION DIAGRAM OF MAIN UNIT

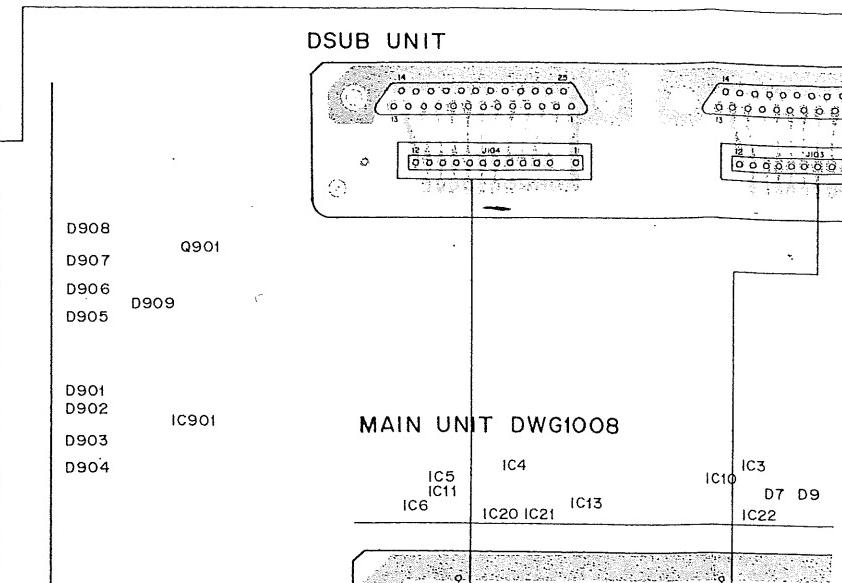
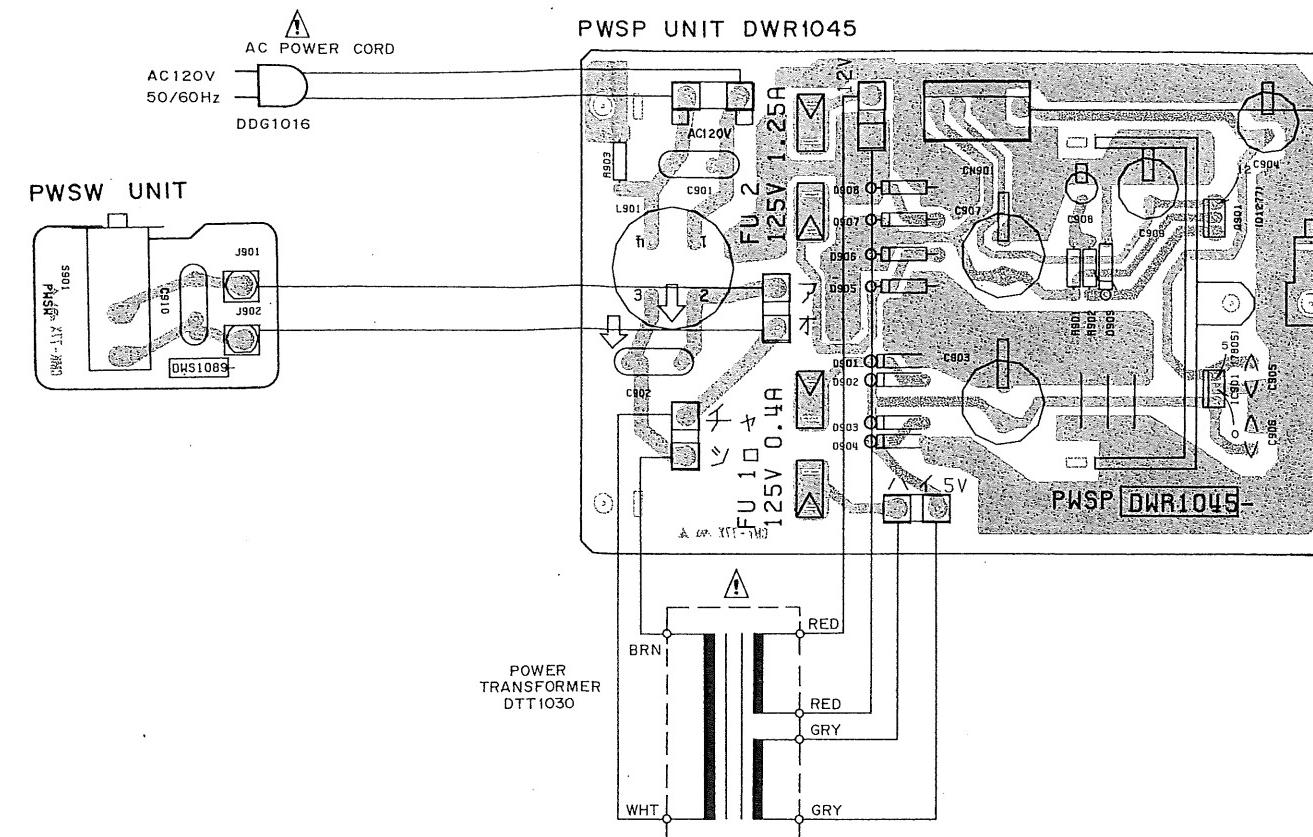
- View from component side

A

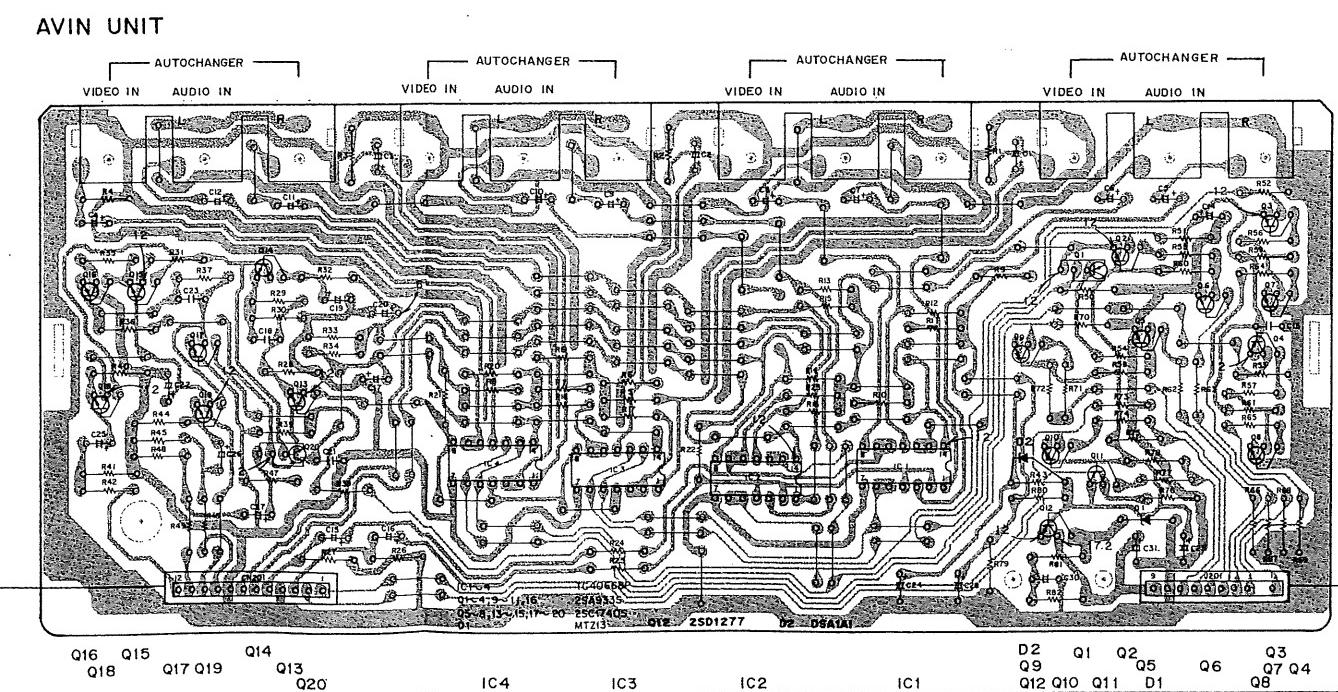
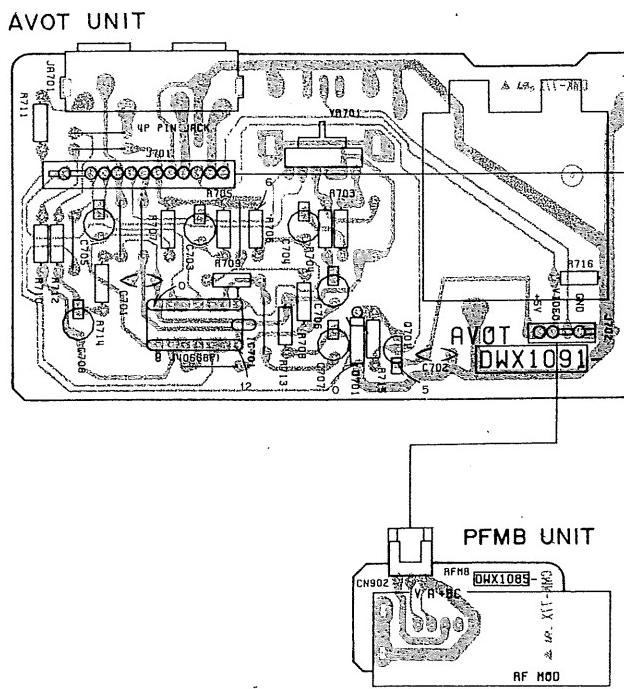
P.C.B. pattern diagram indication	Corresponding part symbol	Part name	P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor			Ceramic capacitor
		FET			Mylar capacitor
		Diode			Styrol capacitor
		Zenner diode			Electrolytic capacitor (Non polarized)
		LED			Electrolytic capacitor (Noiseless)
		Varactor			Electrolytic capacitor (Polarized)
		Tact switch			Electrolytic capacitor (Polarized)
		Inductor			Semi-fixed resistor
		Coil			Resistor array
		Transformer			Resistor
		Filter			

B

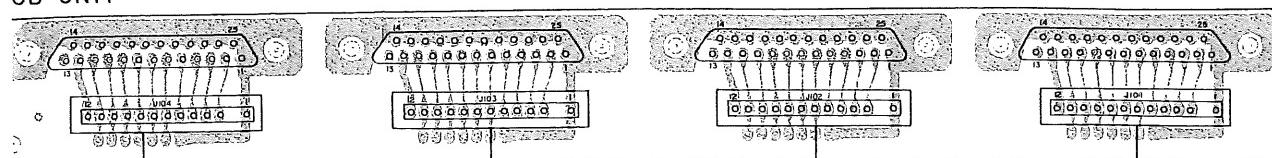
1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with shows negative terminal.
4. The diode marked with O shows cathode side.
5. The transistor terminal marked with shows emitter.



D

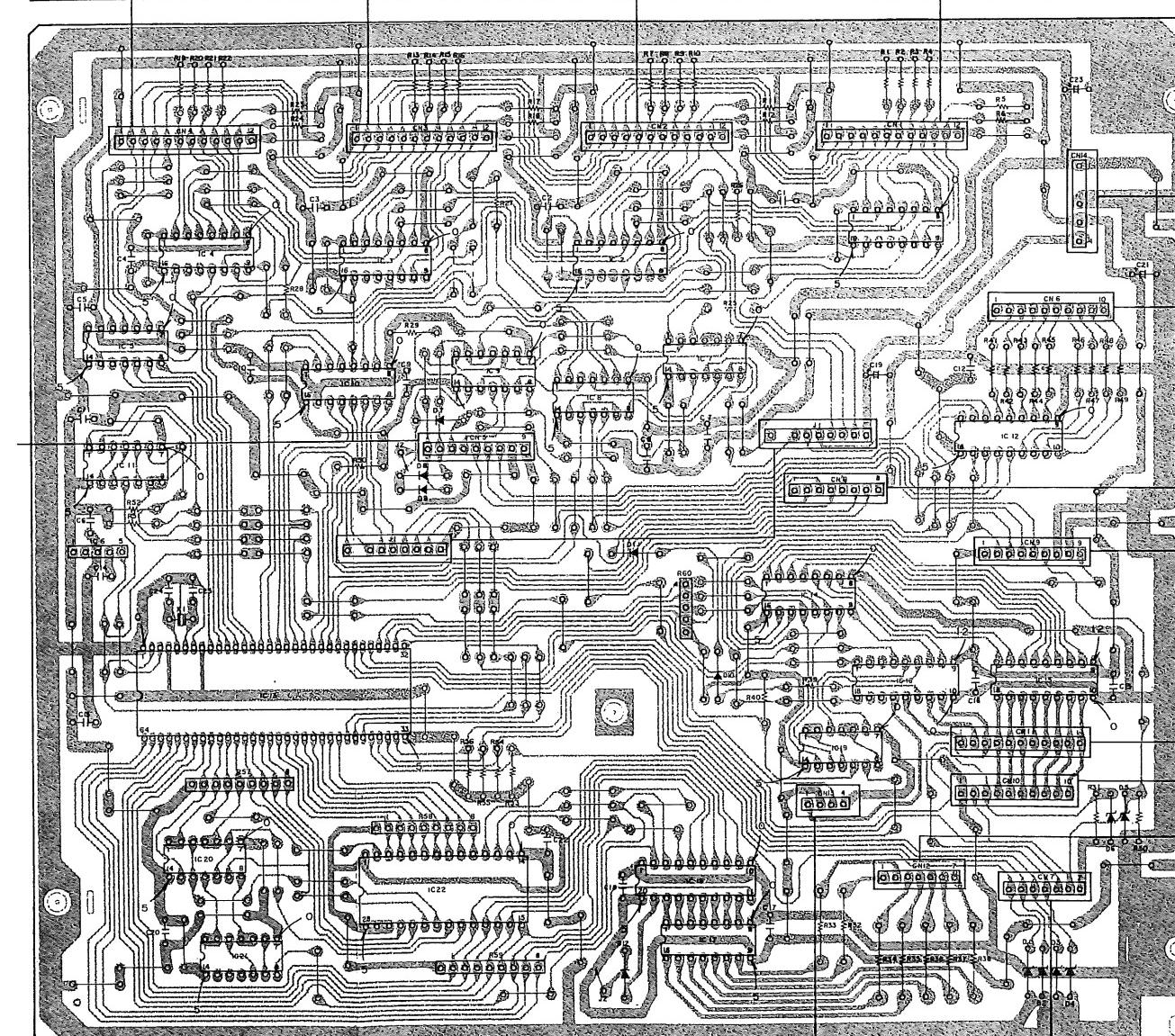


UB UNIT

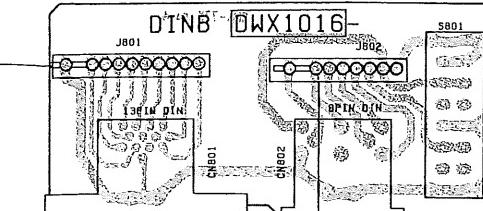


MAIN UNIT DWG1008

IC5 IC4
IC6 IC11
IC10 IC3 D7 D9 IC9 IC2
IC20 IC21 IC13
IC22 IC12 D11 D12
IC7 D10 IC18 IC17 IC14 IC19 IC16
IC12 IC15 D1 ~ D4 D6 D5

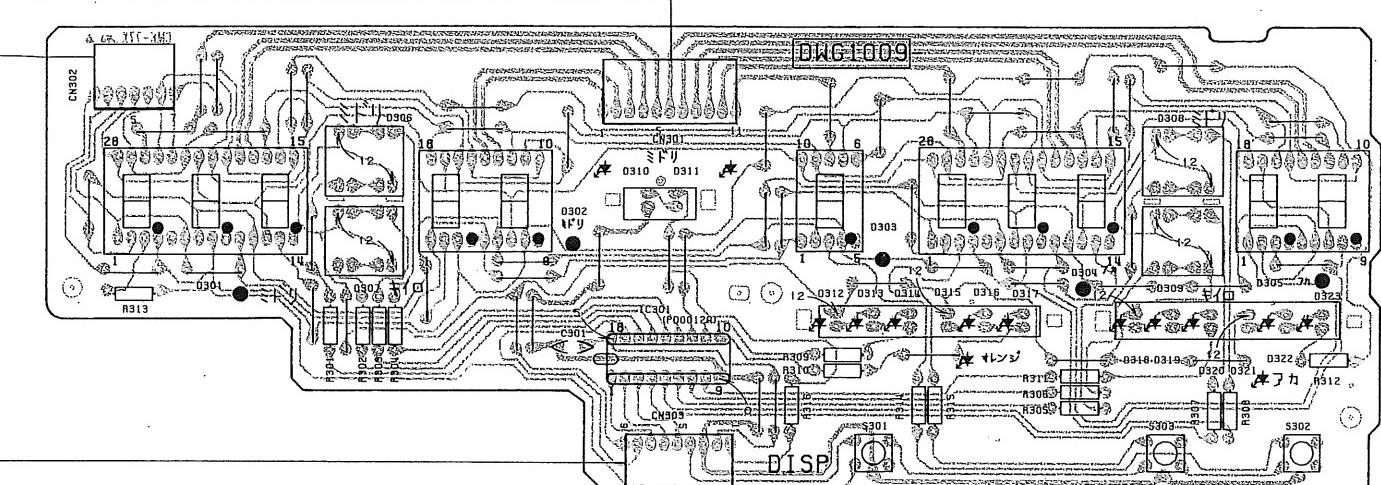


DINB UNIT

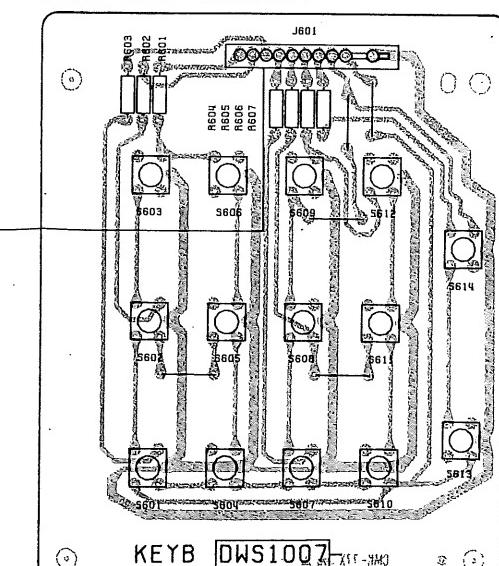


DISP UNIT

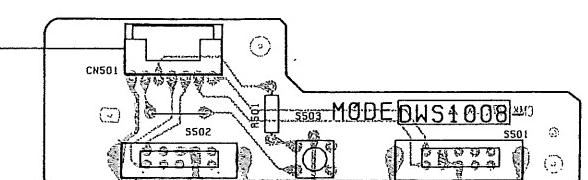
D301 D306
D307 D302
D310 D311
IC301 D303
D312 ~ D317 D304
D308
D309 D305
D318 ~ D323



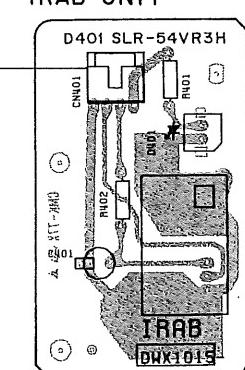
KEYB UNIT DWS1007



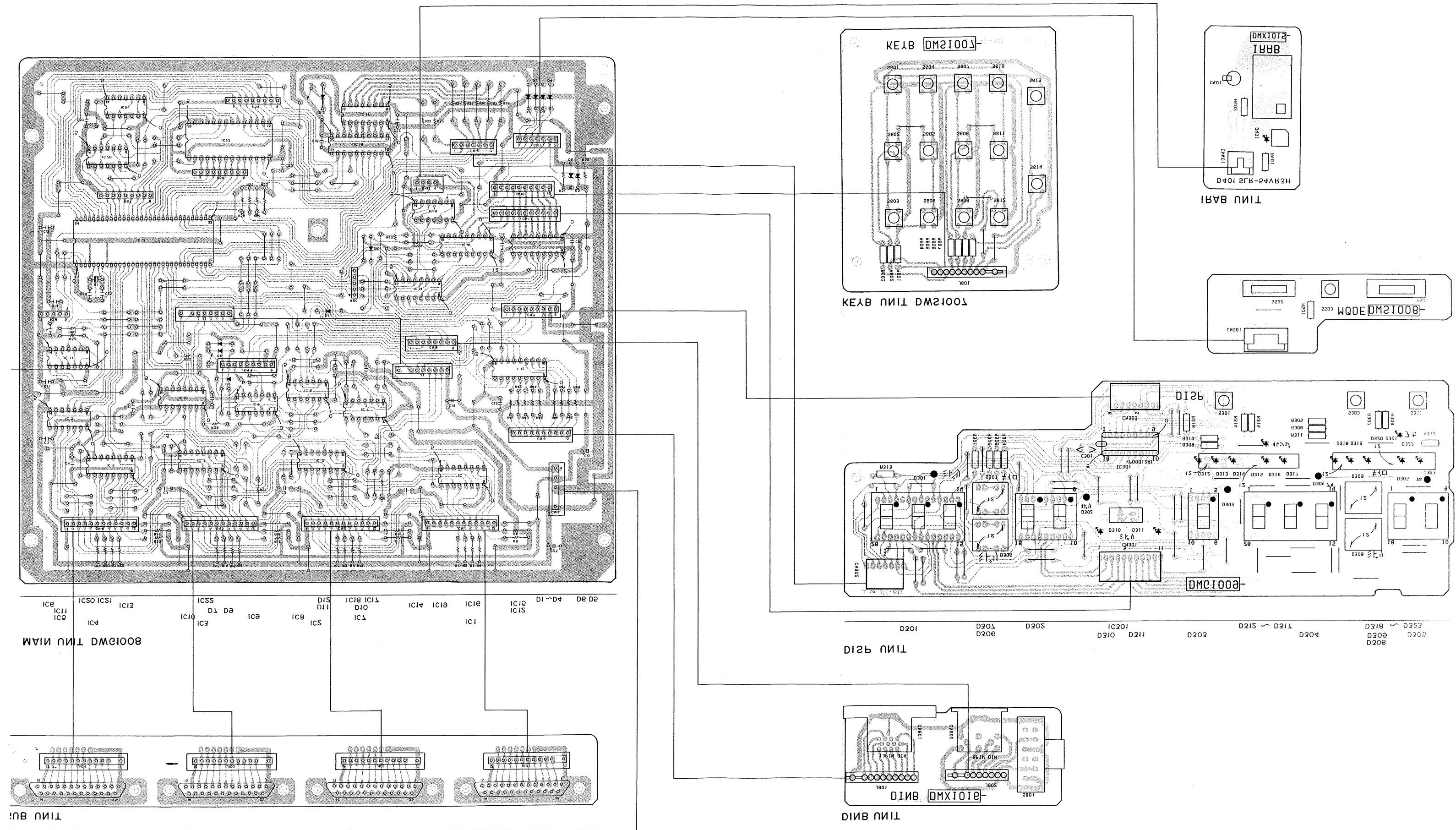
KEYB DWS1007



IRAB UNIT

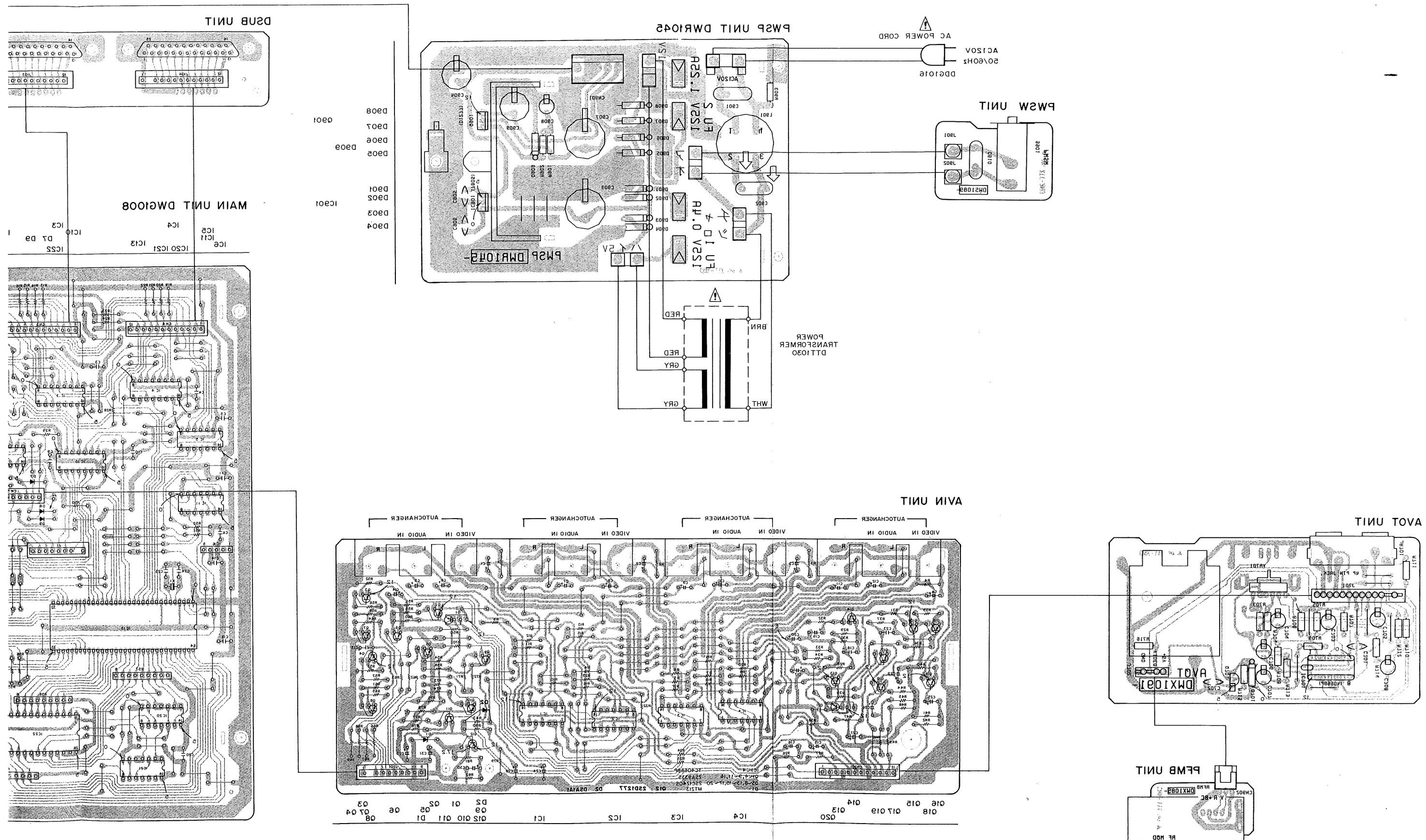


IRAB DHX1015



3.3 P.C. BOARDS CONNECTION DIAGRAM OF MAIN UNIT

• View from soldering side



4. ELECTRICAL PARTS LIST

NOTES :

- Parts without part number cannot be supplied.
- Parts marked by “ \odot ” are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by $J=5\%$, and $K=10\%$).

560 Ω	56×10^1	561	RD1/4PS [5][6][1]J
47k Ω	47×10^3	473	RD1/4PS [4][7][3]J
0.5 Ω	0R5.....		RN2H [0][R][5]K
1 Ω	010		RS1P [0][1][0]K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	562×10^1	5621	RN1/4SR [5][6][2][1]F
----------------	-------------------	------------	-----------------------

Miscellaneous Parts

P.C. BOARD ASSEMBLY

Mark	Symbol & Description	Part No.
\odot	MAIN unit DSUB unit DISP unit	DWG1008
\odot	PWSP unit PWSW unit	DWR1045
\odot	KEYB unit MODE unit IRAB unit DINB unit AVOT unit	DWS1007
	RFMB unit AVIN unit RMTC unit	DWY1004

OTHERS

Mark	Symbol & Description	Part No.
Δ	AC power cord	DDG1016
Δ	FU1 Fuse (400mA)	DEK1007
Δ	FU2 Fuse (1.25A)	DEK1013
Δ	T1 Power transformer	DTT1030
	IC22	DWY1009

\odot MAIN UNIT (DWG1008)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
IC13		HD6305Y2P
IC10		M4556BP
IC6		M51953BL
IC17		M54537P
IC15, IC16		M54564P
IC12		PD0012A
IC18		SN74ALS574N
IC19-IC21		SN74LS00N
IC5		SN74LS243N
IC1-IC4		SN74LS365AN

Mark	Symbol & Description	Part No.
IC9		TC4001BP
IC8, IC11		TC4011BP
IC14		TC4028BP
IC7		TC4069UBP
D1-D6		MTZ5.1A
D7-D12		1SS254

CAPACITORS

Mark	Symbol & Description	Part No.
C24, C25		CCCSL330J50
C21, C23		CEAS221M16
C19		CEAS221M25
C1-C18, C20, C22		CKCYF473Z50
C26		CKCYF103Z50

RESISTORS

Mark	Symbol & Description	Part No.
R60		RA4S104J
R57-R59		RA8S104J
R32-R38		RS2LMF181J
Other resistors		RD1/4PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
IC socket 28P		VKH1001
X1 Ceramic resonator (4.00MHz)		VSS-018

DSUB UNIT

OTHERS

Mark	Symbol & Description	Part No.
D sub connector 25P		DKP-176

DISP UNIT

SEMICONDUCTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
IC301		PD0012A
D306, D308		LN0401GP3
D307, D309		LN0401YP4
D303		LN5160A
D302		LN526GA
D305		LN526RA (V)
D301		LN536GAMG
D304		LN536RAMR
D312-D317		SLV-31DC3-G
D310, D311		SLV-31MC3-H
D318-D323		SLV-31VC3-G

SWITCHES

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
S301-S303	Push switch (MEMORY CHECK, START, STOP)	DSG-106

CAPACITOR

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
C301		CKCYF473Z50

RESISTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
All resistors		RD $\frac{1}{4}$ PM□□□J

① PWSP UNIT (DWR1045)

SEMICONDUCTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
▲ IC901		NJM7805A
▲ Q901		2SD1277
▲ D905-D908		SM1.5-02LFB
▲ D901-D904		DSA1A1
D909		MTZ13B

COIL

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
▲ L901	Line filter	VTL-004

CAPACITORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
C904, C909		CEAS221M16
C903		CEAS332M16
C907		CEAS332M35
C908		CEAS470M25
C905, C906		CKCYF473Z50
▲ C901, C902	(0.01 μ F/AC250V)	RCG-009

RESISTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
R903		RD $\frac{1}{2}$ PM225J
Other resistors		RD $\frac{1}{4}$ PM□□□J

PWSW UNIT

SWITCH

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
▲ S901	Power switch	RSA-063

CAPACITORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
▲ C910	(0.01 μ F/AC250V)	RCG-009

OTHERS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
J901, J902	Connector	DKP1033

② KEYB UNIT (DWS1007)

SWITCHES

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
S601-S614	Push switch (1-0, A-C, E)	DSG-106

RESISTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
R601-R607		RD $\frac{1}{4}$ PM472J

MODE UNIT

SWITCHES

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
S503	Push switch (INTERRUPT)	DSG-106
S501, S502	Slide switch (BGV MODE SELECTOR, MODE SELECTOR)	DSH1003

RESISTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
R501		RD $\frac{1}{4}$ PM472J

OTHERS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
CN501	LP connector	W-P5807

IRAB UNIT**SEMICONDUCTOR**

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
D401		SLR-54VR3H

CAPACITOR

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
C401		CEJA101M6R3

RESISTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
R402		RD1/4PM470J
R401		RD1/4PM681J

OTHERS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
IR sensor unit		VXX1021

DINB UNIT**SWITCH**

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
S801	Slide switch (BILL BOX MODE)	VSH-004

OTHERS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
CN802	DIN connector U 8P	DKP-118
CN801	DIN socket 13P	DKP-121

AVOT UNIT**SEMICONDUCTORS**

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
IC701		TC4066BP
Q701		2SC1740S
D701		MTZ6.2B

CAPACITORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
C703-C706		CEAS4R7M50
C707, C708		CEAS2R2M50
C701, C702		CKCYF473Z50

RESISTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
VR701	Variable resistor	DCS-117
Other resistors		RD1/4PM□□□J

OTHERS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
Pin jack 4P		DKB1005

RFMB UNIT**OTHERS**

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
RFMD		VWL1008

AVIN UNIT**SEMICONDUCTORS**

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
IC1-IC4		TC4066BP
Q1-Q4, Q9-Q11, Q16		2SA933S
Q5-Q8, Q13-Q15, Q17-Q20		2SC1740S
Q12		2SD1277
D1		MTZ13B
D2		DSA1A1

CAPACITORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
C18		CCCH330J50
C28		CEAS101M16
C30		CEAS101M25
C5-C12, C15, C16		CEAS2R2M50
C24, C29		CEAS331M16
C1-C4, C14, C17, C19, C20,		CEAS470M16
C22		CEAS470M25
C31		CEAS471M16
C25-C27		CKCYB331K50
C23		CKCYF473Z50
C13, C21		

RESISTORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
R43		RD 1/6 PM471J
Other resistors		RD1/4PM□□□J

OTHERS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
Pin jack 3P		VKB-022
IC1		UPD6102G
Q1		2SC2021LN
Q2		2SC2673
D1		SLP-173B
D2		SE303A-X
D3-D8		1SS133HV

SWITCHES

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
S1-S25	Tact switch (1-0, A-C, E, #1-#4, N, 64-61)	KHH10914

CAPACITORS

<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
C1		CKCYF103Z50
C2		CEA221M6R3
C3, C4		CCDSL101J50

RESISTORS

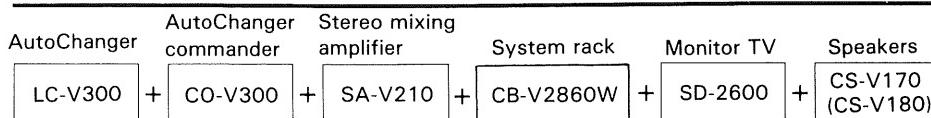
<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
All resistors		RD 1/6 PM □□□J

OTHERS

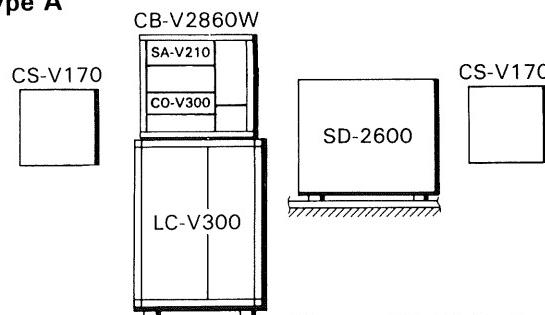
<u>Mark</u>	<u>Symbol & Description</u>	<u>Part No.</u>
X1	Ceramic resonator	CSB480EB

5. SYSTEM COMBINATION EXAMPLE

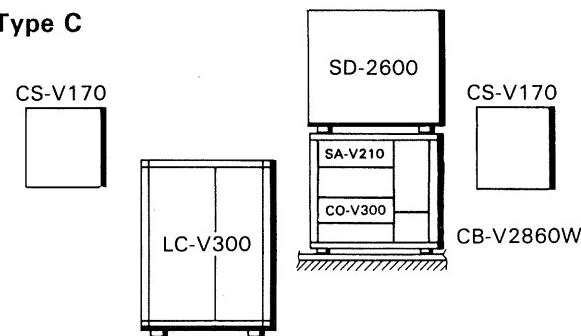
BASIC SYSTEM COMBINATION



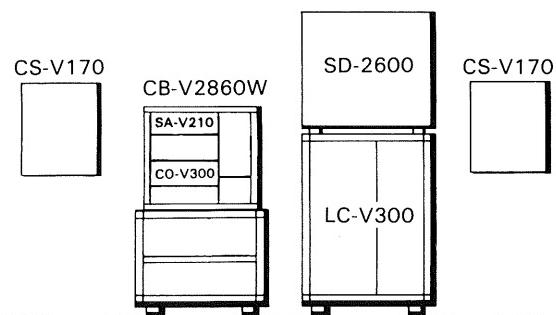
Type A



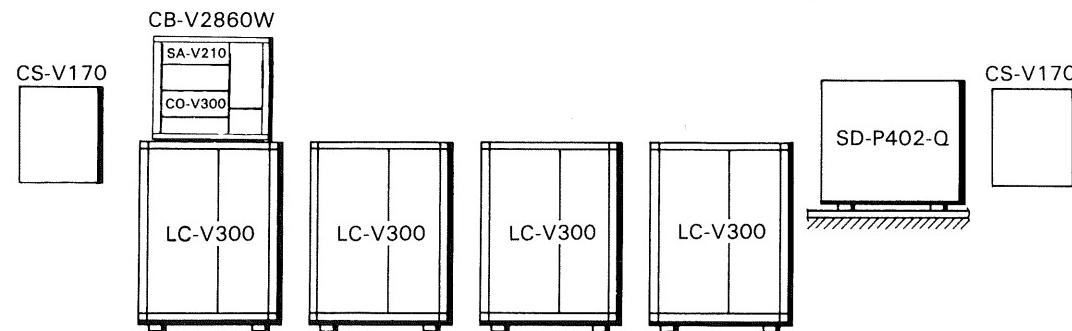
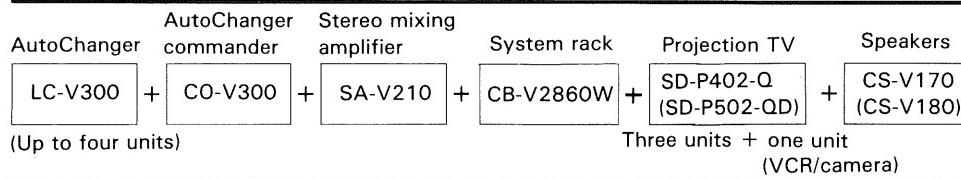
Type C



Type B

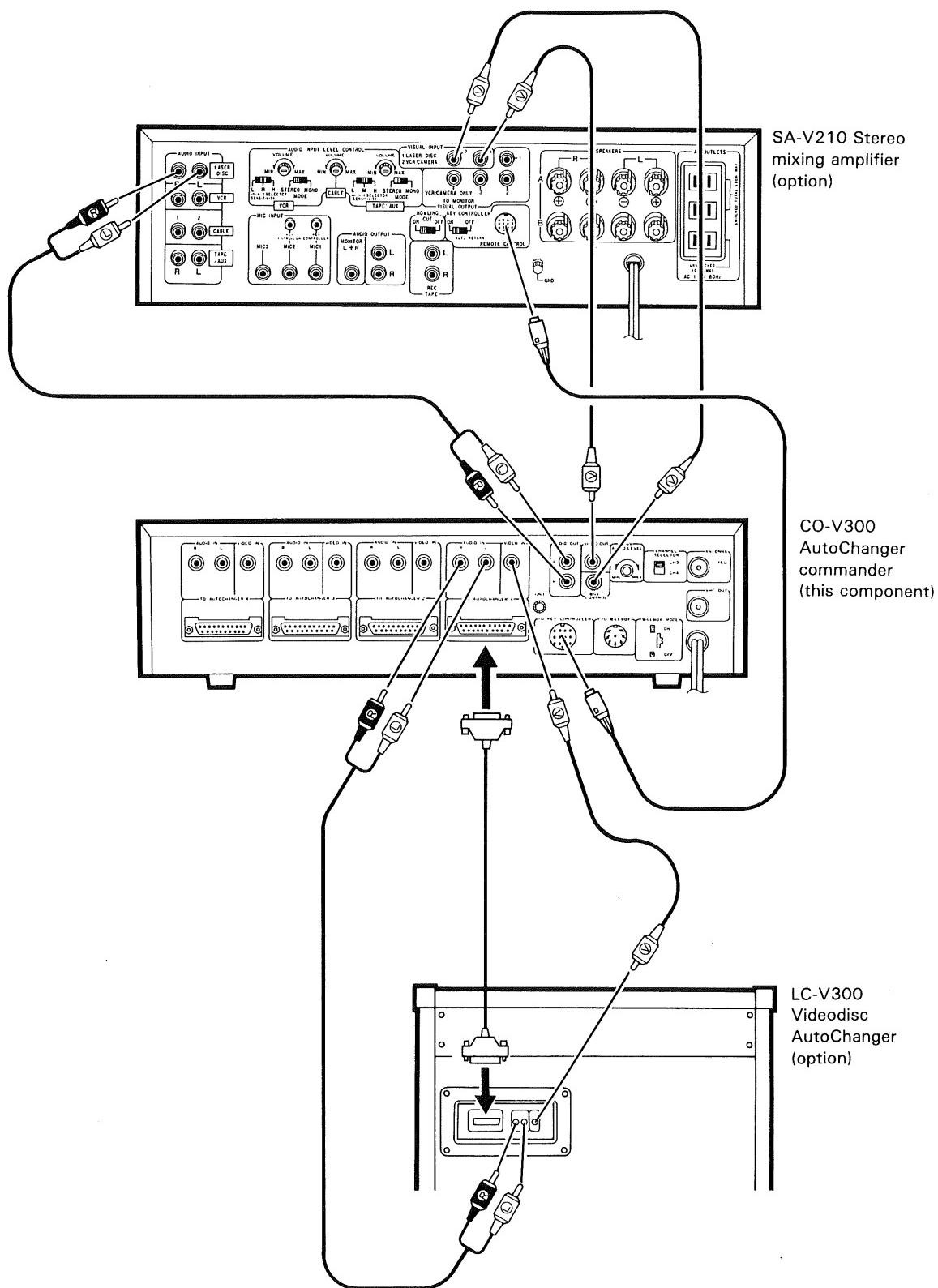


DEVELOPMENTAL SYSTEM COMBINATIONS



6. SYSTEM CONNECTION EXAMPLE

1. CONNECTING THE LC-V300 VIDEOODISC AUTOCHANGER, CO-V300 AUTOCHANGER COMMANDER, AND SA-V210 STEREO MIXING AMPLIFIER

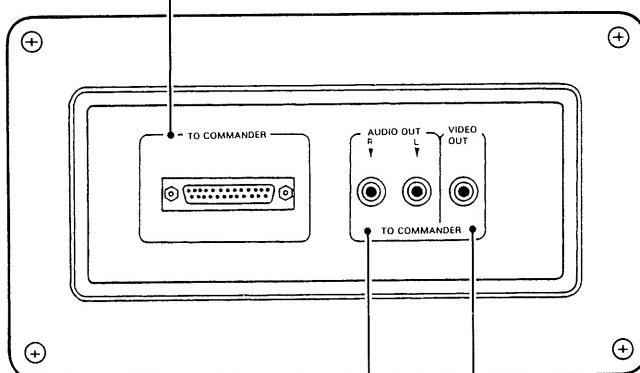


7. OPERATION OF THE LC-V300

REAR TERMINAL FACILITIES

Control terminal (25-pin D-sub connector)

Connected to the AutoChanger control of the CO-V300 (use the attached control cable).



VIDEO OUT terminal (RCA jack)

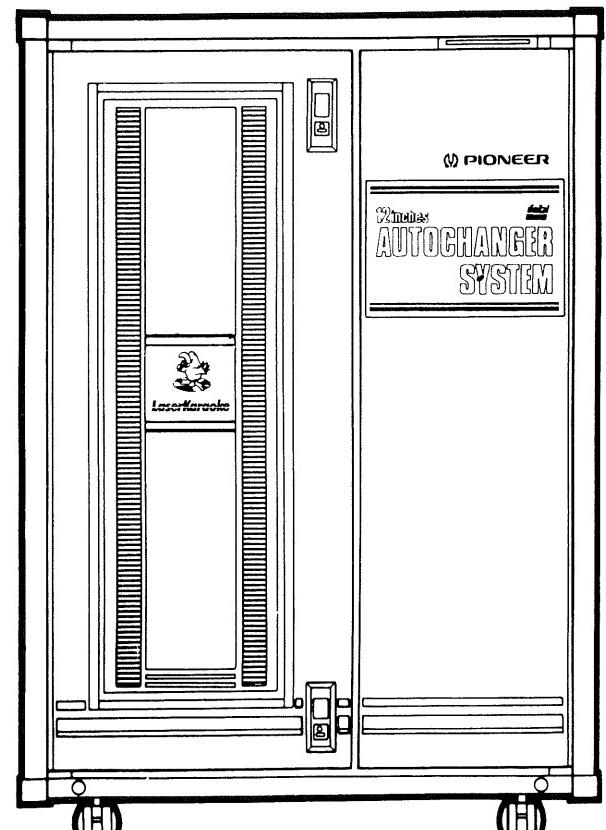
Connected to the AutoChanger VIDEO input of the CO-V300 (use the attached video cable).

AUDIO OUT terminals (RCA jack)

Connected to the AutoChanger AUDIO input of the CO-V300 (use the attached audio cable).

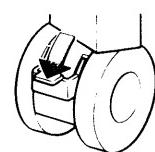
CASTER LOCK

The front casters are provided with a locking mechanism. Lock as shown in the diagram.

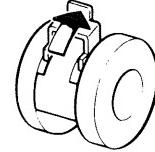


Lock

① The lock will be released when the claw is pushed up.



② The lock will be secured when the claw is pushed down.



If it is difficult to lock, turn the caster slightly.

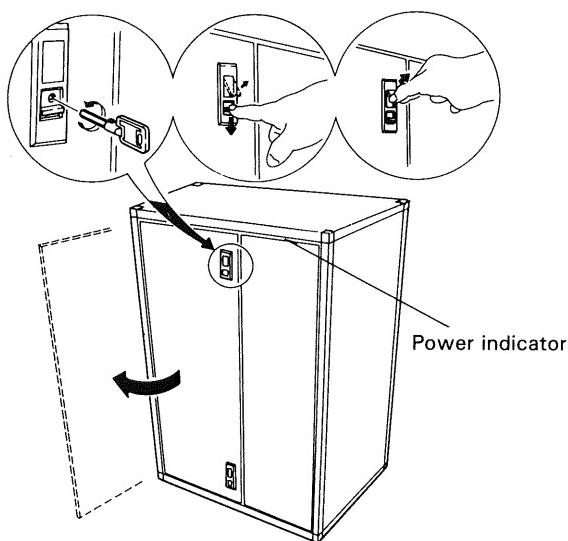


STORAGE OF DISC AND DISC TRAY

How to Open the Door

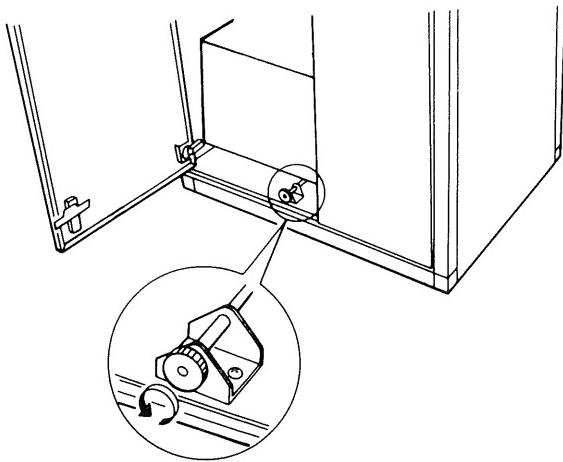
Release the door locks (at two places, top and bottom).

To open the door by hand, release the locks with the key attached to the AutoChanger and press the places indicated by the arrow, then hold the knob up.



Released of Transport Screw

Loosen the screw sufficiently until there is no resistance. This screw will not come off when loosened.

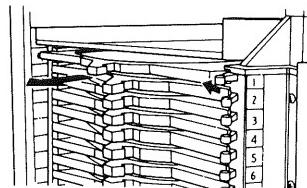


Storage of Disc

Insert the disc while confirming the disc address.

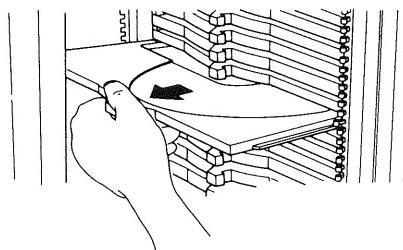
1. Press the stopper located next to the disc address.

- The disc tray corresponding to the address will eject to the specified position.



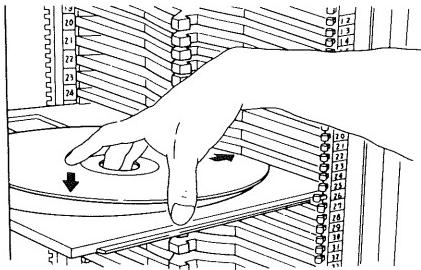
2. Remove the disc tray.

- Be careful not to take out the tray too far. The tray may dislocate from the groove. In the case of dislocation, insert the tray along the groove as before.



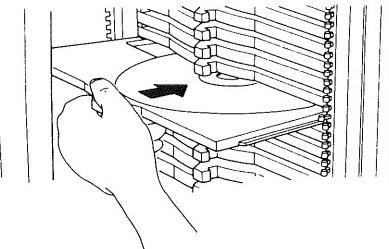
3. Insert the disc.

- Be sure that side A of the disc label faces up when inserting the disc. Insert carefully to avoid damaging the disc surface with the upper tray.



4. Push back the disc tray.

- Push the tray slowly until the stopper pushed in step 1. returns to its original position.



STORE ALL NECESSARY DISCS BY REPEATING THE SAME PROCEDURE.

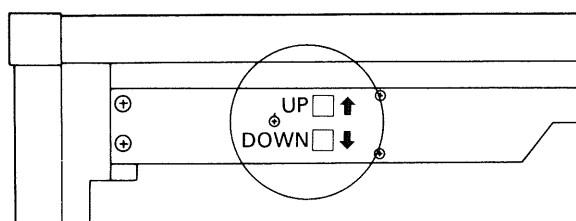
If the player unit prevents the insertion of the discs to the disc tray, turn the power ON and press the UP/DOWN button. Hold the button until the power indicator begins to blink slowly (1/sec.), then close the door of the AutoChanger. (Lock at top and bottom.) The player goes up to the upper limit when the UP button is pressed, and goes down to the lower limit when the DOWN button is pressed. The power indicator will blink slowly (1/sec.) when the player unit is moving.

When the power indicator stops blinking, the transfer is completed. Open the door and insert the discs. However, the player unit cannot be moved by the UP/DOWN button and the power indicator will blink rapidly (4/sec.) when the transport screw has not been loosened.

After moving of the player unit, the player will stop for approx. 20 sec.

After this period (if the door is closed), the BGV MODE SELECTOR switch is activated, and the player unit moves to BGV performance.

If the lock of the door is released while the player unit is moving, then the player will stop immediately.



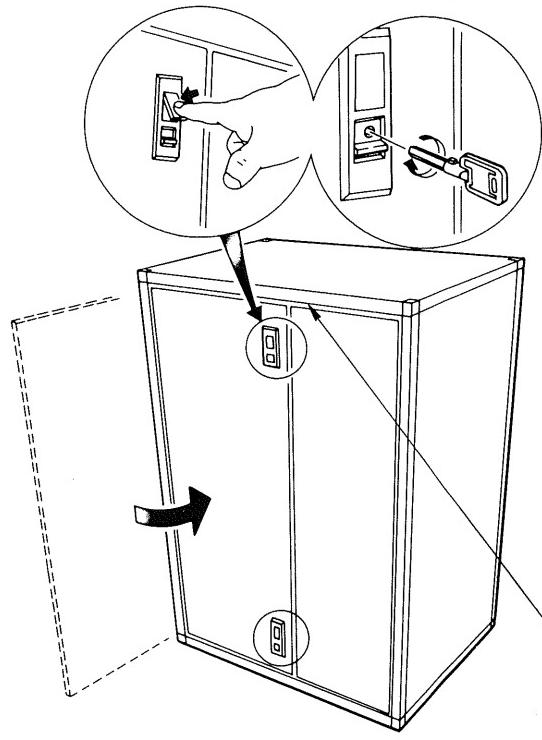
For BGV playback insert the BGV disc in the 71st and/or 72nd tray.

If BGV playback is not desired, Karaoke discs can be placed into the trays 1 – 72.

Please note that BGV playback cannot be carried out from discs in the second Autochanger.

How to Close the Door

- Lock by lever Close the door and lock it.
(Be sure to lock at two places.)
- Lock by key Lock the door with the key attached to the AutoChanger.



The power indicator flashes when the door is closed with incorrect disc tray setting.

REPLACING THE DISC

Perform it with the same procedure as "Storage of the Disc." Be careful that the player stops playback when the door is opened during play.

TRANSPORTATION

1. Open the door of the AutoChanger.
2. Remove all discs and put them into their jackets.
 - Press the DOWN button to lower the player unit to the bottom after taking out all discs. The transport screw cannot be tightened if the player is not in bottom position.
3. Tighten the transport screw.
 - Transportation without the screw tightened may cause malfunction.
4. Close the door and lock it.
5. Turn the power OFF and disconnect all connection cords.
6. Move the machine carefully. In the case of shipping, pack it in its original box.

8. PANEL FACILITIES

FRONT PANEL

POWER switch (■ ON, ■ OFF)

Pressing the switch turns the power on, and releasing the switch turns the power off.

REMOTE indicator

Lights up when the REMOTE SENSOR receives a signal from the remote control unit.

REMOTE SENSOR

Receives a signal from the remote control unit at a distance up to 5 m.

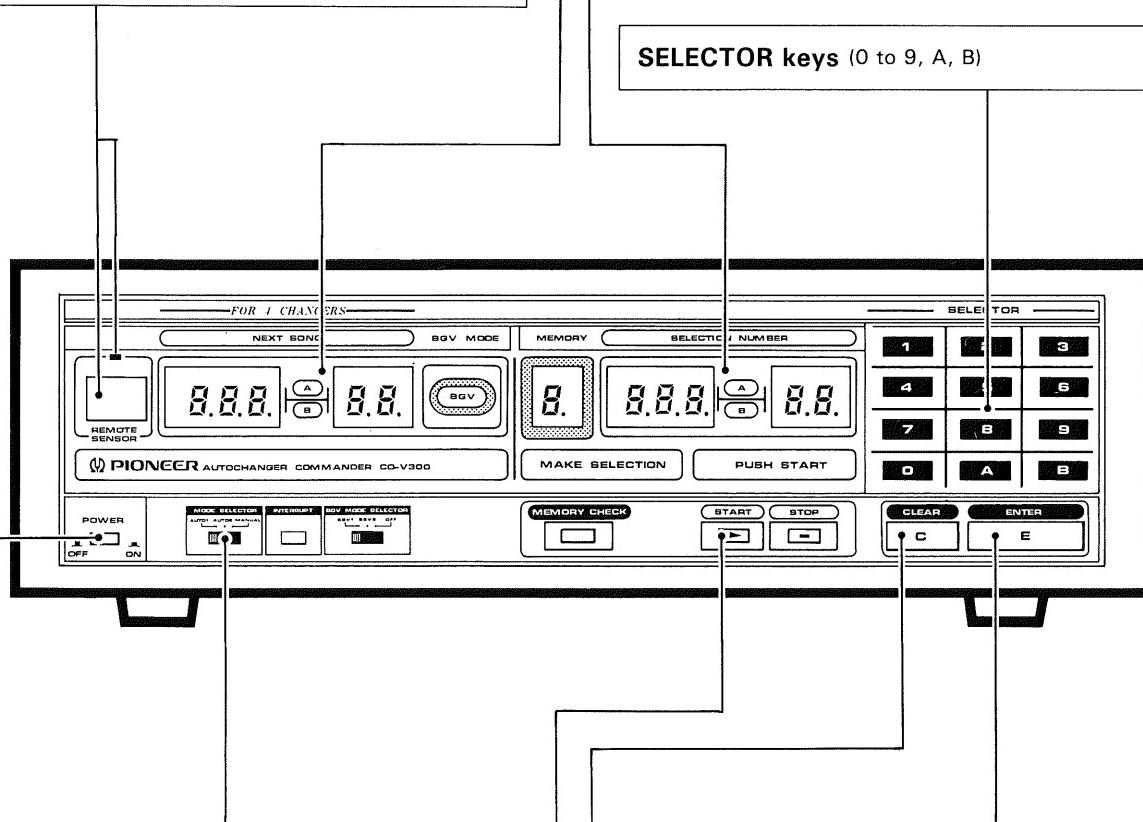
NEXT SONG indicator

Shows the song number to be played next. If the ENTER key is pressed when the first song is memorized (shown by the SELECTION NUMBER indicator), the number is shown on the indicator. When playing of the indicated song starts, the number of the next song to be played is shown.

SELECTION NUMBER indicator

Pressing a SELECTOR key shows the selected song number. In memory check mode, it indicates the memorized song numbers.

SELECTOR keys (0 to 9, A, B)



MODE SELECTOR switch

- **AUTO 1** — Automatically plays memorized songs at intervals of about 10 to 25 seconds.
- **AUTO 2** — Automatically plays memorized songs at intervals of 30 seconds.
- **MANUAL** — Requires pressing the START key to start playing the next song after playback of the prior song ends.

START key

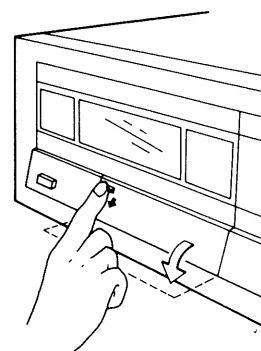
Use to start playback when the MANUAL mode is specified by the MODE SELECTOR switch.

ENTER (E) key

To memorize songs.

CLEAR (C) key

If this key is pressed prior to pressing the ENTER key after a song number has been selected, the song number can be canceled. The song number blinking on the NEXT SONG indicator can be canceled in reselection mode.

[How to open]**BGV MODE SELECTOR switch**

- **BGV1** — Outputs both images and sound during BGV disc playback.
- **BGV2** — Outputs only images during BGV disc playback.
- **OFF** — Does not play a BGV disc.

BGV indicator

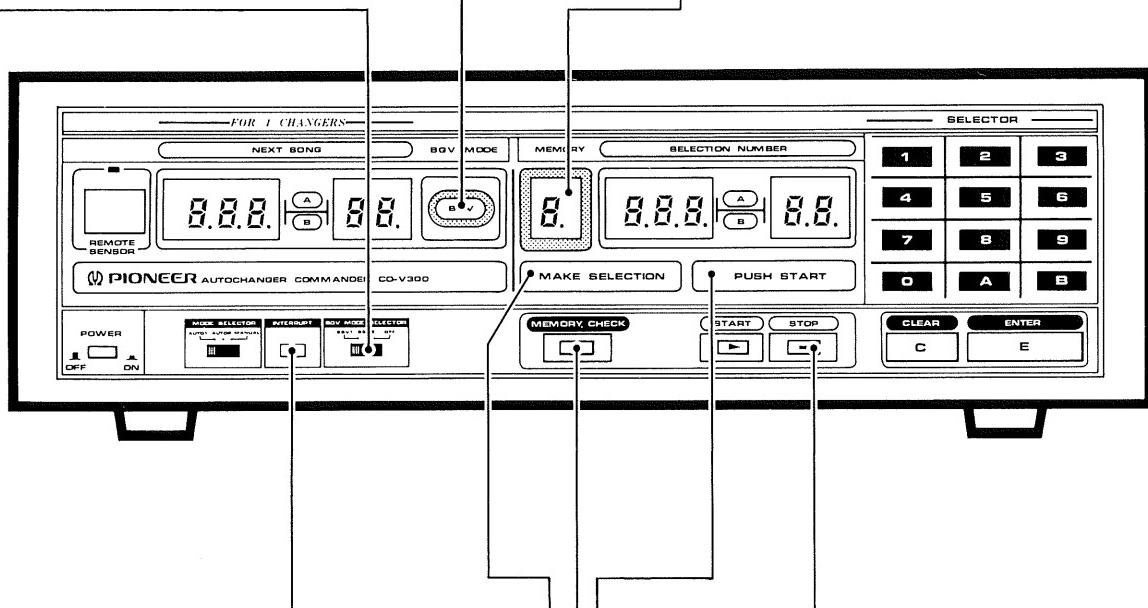
Lights up during BGV disc playback.

MEMORY indicator

Displays the number of memorized songs.

Up to eight songs can normally be memorized. However, up to nine songs are memorized if interrupt selection is executed.

The memory sequence is shown in memory check mode.

**INTERRUPT key**

To interrupt the memorized song sequence and play another song before the next memorized song.

MAKE SELECTION indicator

Lights up when song selection can be operated.

STOP key

Press to stop a song during playback.

The system enters reselection mode if the STOP key is pressed within 30 seconds of playback start.

* If a BILL BOX is used, a song is assumed to have ended when 30 seconds or more have elapsed since the screen was displayed.

MEMORY CHECK key

Each time this key is pressed, the memorized song number is shown by the SELECTION NUMBER indicator and the memory sequence is displayed by the MEMORY indicator.

PUSH START indicator

Blinking when a song is ready to start in MANUAL mode.

REAR PANEL

TO AUTOCHANGER 1 connecting terminal

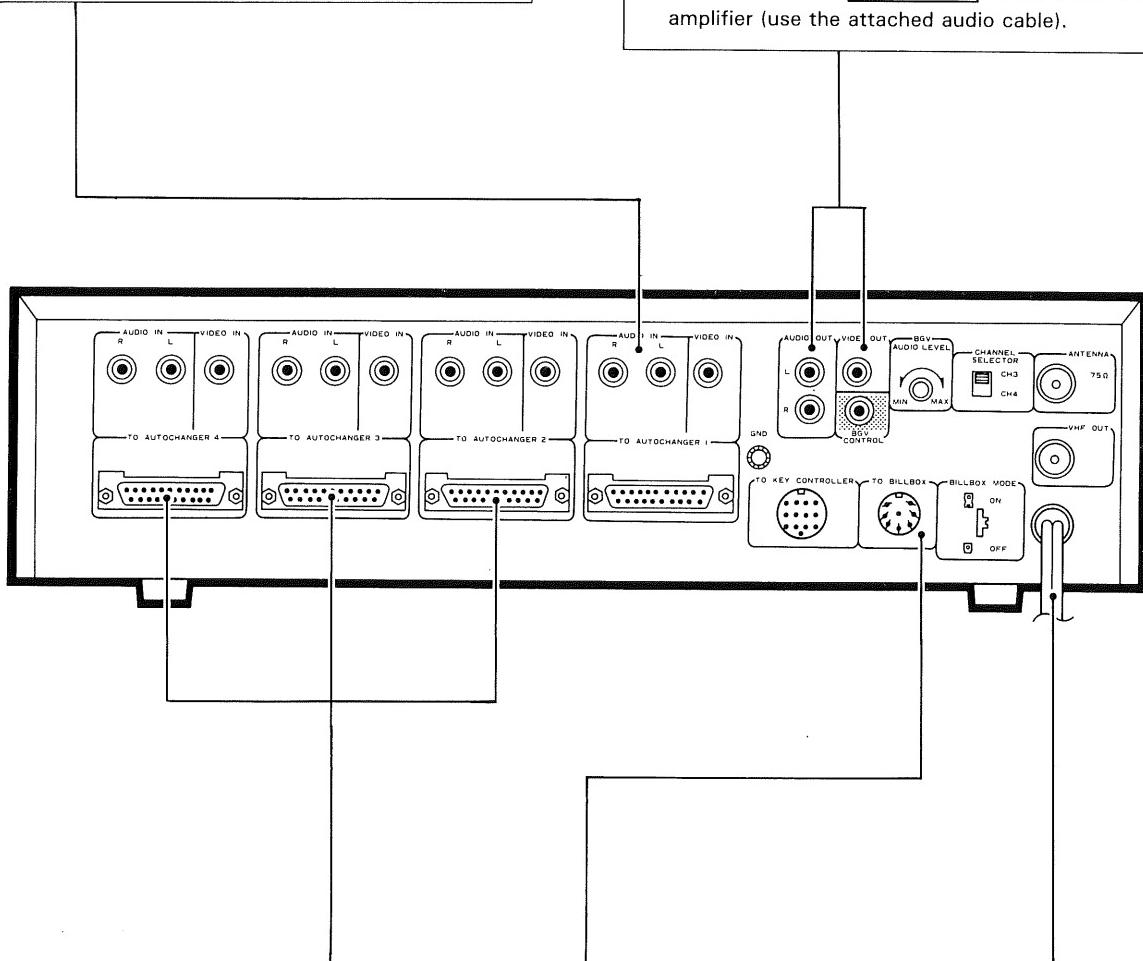
Connects the first Videodisc AutoChanger (first disc to 72nd disc).

- VIDEO IN (pin jack):
Connected to the VIDEO OUT terminal of the Videodisc AutoChanger (use the attached video cable).
- AUDIO IN (pin jack):
Connected to the AUDIO OUT terminal of the Videodisc AutoChanger (use the attached audio cable).
- Control (25-pin D-sub connector):
Connected to the TO COMMANDER terminal of the Videodisc AutoChanger (use the attached control cable).

VIDEO OUT, AUDIO OUT terminals

Output the image and sound signals input by the Videodisc AutoChanger. Connected to the stereo mixing amplifier.

- VIDEO OUT (RCA jack):
Connected to the **LASERDISC** image input of the mixing amplifier (use the attached video cable).
- BGV CONTROL (RCA jack):
Connected to the **VCR/CAMERA** image input of the mixing amplifier (use the attached video cable).
- AUDIO OUT (RCA jack):
Connected to the **LASERDISC** sound input of the mixing amplifier (use the attached audio cable).

**TO AUTOCHANGER 2, 3, 4 connecting terminals**

Connect the second to fourth Videodisc AutoChangers.

- 2 —— For the second unit
- 3 —— For the third unit
- 4 —— For the fourth unit

Power cord

Insert into a wall outlet (120 V AC, 50/60 Hz) or the outlet of the SA-V210 stereo mixing amplifier (option).

TO BILL BOX terminal (8-pin DIN connector)

Connected to the control terminal of a BILL BOX (use the dedicated cable attached to the BILL BOX).

CHANNEL SELECTOR switch (CH3/CH4)

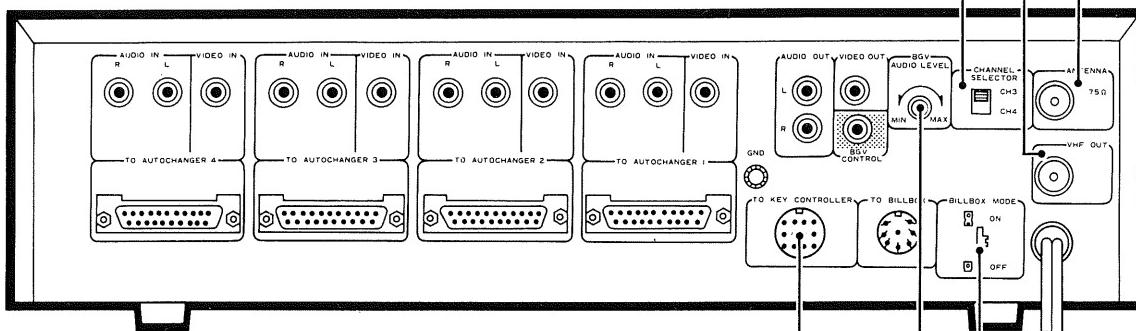
Changes the channel of the integral VHF converter; specify a channel not used for broadcasting in the area where this unit is used.

VHF OUT terminal (75 ohms F-type jack)

Connected to the VHF antenna terminal of a TV set (use the attached RF cable). Video only is output without sound during disc playback.

ANTENNA input terminal (75 ohms F-type jack)

Connected to a 75-ohm cable from the VHF TV antenna.

**TO KEY CONTROLLER terminal****(13-pin DIN connector)**

Connected to the KEY CONTROLLER REMOTE CONTROL terminal of the SA-V210 stereo mixing amplifier (option) (use the attached key controller control cable). This connection enables the integral key controller in the amplifier to be operated from the attached remote control unit.

BILL BOX MODE switch

Sets BILL BOX MODE ON/OFF. (Press for OFF)

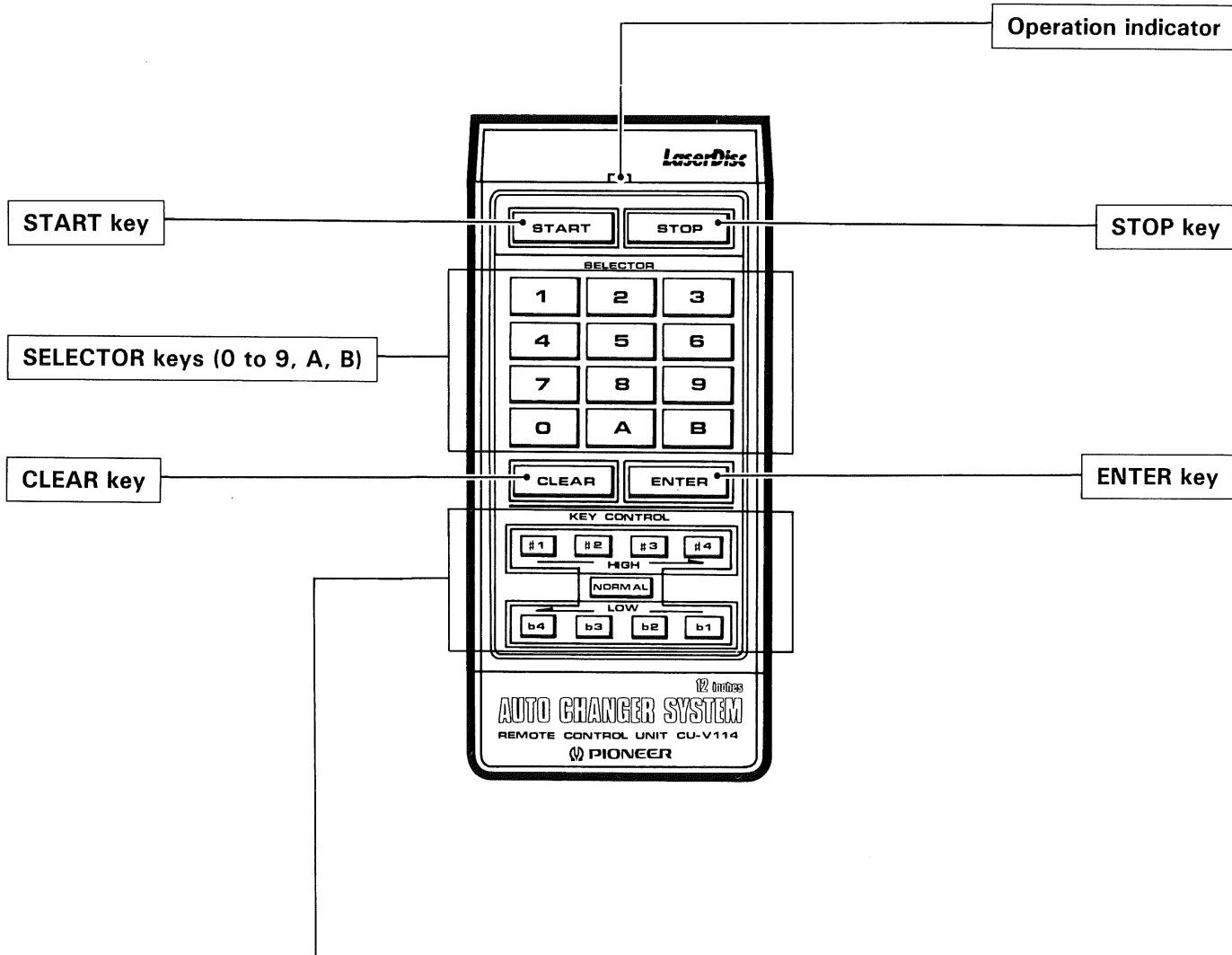
- Out (BILL BOX MODE: ON): The system operates only if connected to the BILL BOX.
- Depressed (BILL BOX MODE: OFF): The system operates without the BILL BOX (if the BILL BOX is connected, connect the audio/video output directly to the amplifier).

BGV AUDIO LEVEL control

Controls the BGV sound volume when a BGV disc is played. Rotate to the left to reduce sound volume; rotate to the right to increase sound volume. This control is not related to the audio level of the karaoke playback.

REMOTE CONTROL UNIT

The functions of the keys, other than the KEY CONTROL keys, are the same as for the keys on the CO-V300 main unit.



KEY CONTROL keys

Operates the integral KEY CONTROLLER in the SA-V210 if the KEY CONTROLLER terminal of the CO-V300 Videodisc AutoChanger is connected to the KEY CONTROL REMOTE CONTROL terminal of the SA-V210 stereo mixing amplifier.

#1 to #4 — Increases the pitch up to the four steps by the semitone.

NORMAL — Sets the standard key.

b1 to b4 — Decreases the pitch up to the four steps by the semitone.

(Auto Return Function)

The SA-V210 Auto Return function returns the previous song key to standard key each time a song ends.

This function is activated when the AUTO RETURN switch on the SA-V210 rear panel is ON.

9. SPECIFICATIONS

General

Power requirements 120 V AC, 50/60 Hz
 Power consumption 21W
 Weight (without package) 5.3kg (11 lb 11 oz)
 Dimensions 420(W) × 348(D) × 120(H) mm
 16-9/16(W) × 13-11/16(D) × 4-3/4(H) in
 Operating temperature +5°C to +35°C
 Operating humidity 5% to 90%

Video input/output

INPUT terminal RCA jack
 OUTPUT terminal RCA jack

Audio input/output

INPUT terminals RCA jack
 OUTPUT terminals RCA jack

Other terminals

TO BILL BOX 8-pin DIN
 TO KEY CONTROLLER (To amplifier KEY)
 CONTROLLER REMOTE CONTROL jack) 13-pin DIN
 TO AUTOCHANGER 25-pin D-sub

Functions

- BILL BOX mode ON/OFF switchable
- Program selection Up to eight songs
- Program change and cancellation Within 30 seconds from playback start
- START mode AUTO/MANUAL switchable, INTERRUPTION play available
- BGV mode VIDEO-AUDIO/VIDEO ONLY/OFF switchable

Accessories

- Key controller control cable 1
- Video cable 2
- Audio cable 1
- Remote control unit (CU-V114) 1
- Size "AA" battery (R6/UM-3) 2
- Operating instructions 1
- RF cable 1
- Antenna adapter (75/300 ohms → 75 ohms) 1

NOTE:

- Specifications and design subject to possible modifications without notice, due to improvement.

